



Evergreen Resources Management
2 Righter Parkway, Suite 200
Wilmington, DE 19803

January 26, 2015

Mr. David Brown
Pennsylvania Department of Environmental Protection
2 East Main Street
Norristown, Pennsylvania 19401

**RE: Philadelphia Refinery Remediation Program
Groundwater Remediation Status Report, Second Half 2014**

Dear Mr. Brown:

Enclosed for your review is a semi-annual summary report for Operation & Maintenance (O&M) work completed at the Philadelphia Energy Solutions Refining & Marketing LLC (PES) Philadelphia Refinery and the Sunoco Logistics Belmont Terminal between July 1 and December 31, 2014. Detailed information regarding O&M activity is included in the attached tables and figures for the Philadelphia Refinery as prepared by Stantec Consulting Services Inc. (Stantec). **Figure 1** is a site location map showing the facility location with respect to the surrounding area, and **Figure 2** is a site plan which identifies remediation system areas. This letter summarizes the information detailed in the tables plus additional activities under the Site Wide Approach such as investigations of the various Areas of Interest (AOIs).

In compliance with the 2003 Consent Order and Agreement (CO&A) entered into between Sunoco Inc., (R&M) (Sunoco) and the Pennsylvania Department of Environmental Protection (PADEP) for the Philadelphia Refinery property located at 3144 Passyunk Avenue in Philadelphia, Pennsylvania, Sunoco has completed site characterization activities for all 11 AOIs. This facility has since been entered into the Pennsylvania One Cleanup Program. On November 30, 2011, Sunoco submitted a "Work Plan for Site Wide Approach under the One Cleanup Program" (Site Wide Approach) to the PADEP and the United States Environmental Protection Agency (USEPA). The Site Wide Approach clarifies the technical approach beyond the CO&A and provides an anticipated schedule for future Act 2 submissions with respect to the Philadelphia Refinery remediation program. Effective December 30, 2013, "Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC" (Evergreen) assumed Sunoco/Atlantic's legacy remediation liabilities with respect to the Philadelphia Refinery. All remediation of Sunoco/Atlantic's historic environmental liabilities at the Philadelphia Refinery will be managed moving forward by Evergreen. Site Characterization Reports submitted to the agencies will be repackaged into Site Characterization/Remedial Investigation Reports (SCR/RIR). Status and anticipated dates of submittals will be updated in the semi-annual Remediation Status Reports. This particular status report will not include an updated schedule for submittals under Act 2. Evergreen is currently working with you to develop an approach for more acceptable submittals of Act 2 reports. We expect to have an updated schedule in the next semi-annual status report.

As the Department is aware, on September 8, 2012, Sunoco conveyed the Philadelphia Refinery to PES. As part of that transaction, Sunoco retained responsibility for remediation activities for environmental conditions existing at the time of the transfer. Accordingly, Evergreen will continue to submit the required documentation and implement the required remedial obligations.

AOI 1 – Belmont Terminal / No. 1 Tank Farm / No. 2 Tank Farm

Consent Order / Characterization Status

Sunoco submitted to the PADEP and the USEPA a Site Characterization Report (SCR) for AOI 1 dated June 30, 2005. Based on comments received by the PADEP with regard to the AOI 1 SCR, Sunoco prepared and submitted to the PADEP a revised SCR for AOI 1 dated July 17, 2006. The recommendations in the AOI 1 report were to supplement the existing remediation system along the northwestern portion of the Belmont Terminal and southeastern portion of the No. 1 Tank Farm. Sunoco has implemented these actions as detailed in previous quarterly reports. In addition, Sunoco provided the PADEP a Remedial Action Plan (RAP) for AOI 1 in January 2008. As a result of the 26th Street North remediation system study and the S-50 Area investigation, an addendum to the RAP was considered necessary. In December 2008, a RAP Addendum for AOI 1 was submitted to address the 26th Street North recovery system data analysis and the S-50 Area (26th Street South) investigation and subsequent remedial actions.

Belmont Terminal – Operation During the Second Half of 2014

On June 5, 2013, the Loading Rack system was turned off in order to maximize recovery in the 26th Street North area. The Loading Rack system was restarted on September 25 in order to obtain a flow rate for the system. The system was shut off on September 30 and will remain off pending modifications to the 26th Street North recovery system (slated to be begin in 2015).

On August 30, 2012, the Frontage Road system was turned off and will remain offline unless there are significant increases in light non-aqueous phase liquid (LNAPL) in the recovery wells. The wells were gauged on August 13, 2014 and December 1, 2014, and no product was detected in the recovery wells.

System data for the second half of 2014 can be found in **Attachment 1**.

Shunk Street Sewer Ventilation System and Biofilter – Operation During the Second Half of 2014

The biofilter was operational for the reporting period. System data for the second half of 2014 can be found in **Attachment 1**.

26th Street Sewer Area – Operation During the Second Half of 2014

Due to high iron content of the total fluids recovered, the pumps routinely become fouled. During weekly visits, pumps were pulled, cleaned, and redeployed as needed. Similarly, the system flow meter also fouls with iron; therefore, actual gallons recovered may be greater than recorded for some weekly visits. The system was operational for the reporting period with the following exceptions.

- The system was turned off from July 30 to August 1 for semi-annual maintenance.
- On August 15 and September 10, the flow meter was inoperable.
- The system was turned off on September 24 in order to obtain a flow rate from the Belmont Terminal Loading Rack system. The system was restarted on October 1.

- On October 3, October 8, and October 17, the flow meter was inoperable. The system was shut off on October 17 to dry out and repair the flow meter. The system was restarted on October 22; however, the flow meter was bypassed until the ball valves were replaced on November 11.
- The flow meter was inoperable on November 18.
- On November 25, the system was turned off pending upgrades to the system.

A total of 3,121,039 gallons of total fluids was recovered by the 26th Street recovery system during the reporting period. System recovery totals for the second half of 2014 can be found in **Attachment 1**.

26th Street Sewer Area – System Performance

26th Street North:

Sunoco has conducted a performance assessment of this system to better determine the effectiveness of remediation in this area. In general, Sunoco believes that the reporting of groundwater and LNAPL recovery provides limited indication of system performance, and should be supplemented with measurements related to maintaining groundwater level and affecting a gradient towards collection points. It was concluded in the AOI 1 RAP Addendum that the extent of LNAPL has not changed significantly; however, LNAPL thickness appears to have decreased over time, indicating stability of LNAPL along the 26th Street North area.

Evergreen plans to modify the 26th Street North system to increase its effectiveness. A one and one-half inch lateral line will connect each recovery well to a new four-inch high density polyethylene (HDPE) trunk line, which will transfer the total fluids to the process sewer. Currently the Belmont Terminal Loading Rack system competes with the 26th Street North system at the discharge point. This will enable both systems to pump more effectively.

26th Street South (S-50 Area):

A comprehensive groundwater investigation was conducted in the 26th Street South area. This data and proposed remedial action was included in the AOI 1 RAP Addendum. To minimize the migration of soluble phase contaminants, a biologically active aerobic barrier utilizing oxygen injection was recommended for the area. A thirty-point oxygen injection system was installed to accomplish this barrier.

Due to the presence of LNAPL within the capture zone, the 26th Street South oxygen injection system was shut off on August 22, 2014. The conceptualization of a recovery system will be evaluated in the Cleanup Plan. Operational and performance data, collected in accordance with the performance monitoring plan, for July 2014 is included in **Attachment 1**.

26th Street Biofilter – Operation During the Second Half of 2014

The biofilter was operational throughout the second half of 2014. The system operation is checked once per week and includes the collection of influent and effluent vapor concentrations utilizing a photoionization detector (PID). System data for the quarter can be found in **Attachment 1**.

AOI 2 – Point Breeze Processing Area

Consent Order / Characterization Status

The AOI 2 SCR/RIR was submitted to the PADEP and the USEPA on September 29, 2010.

Pollock Street Sewer Area – Operation During the Second Half of 2014

During October 2011, heavier than usual quantities of oil were observed within the Pollock Street sewer outfall. As a result, Sunoco completed the expansion of the existing vertical recovery well remediation system in the vicinity of the Pollock Street sewer outfall in February 2012. The system, referred to as the Pollock Street West End system, consists of a total of ten 4-inch diameter recovery wells on the east side of River Road and twenty 6-inch diameter recovery wells on the west side of River Road. Groundwater and LNAPL are removed from select recovery wells using pneumatic submersible pumps. All liquids are processed through an oil/water separator. Water is discharged to a refinery process sewer, and LNAPL is recovered in a series of two 550-gallon tanks and then recycled by the refinery. A report describing the details of the investigation and remediation performed in response to the oil observed in the Pollock Street outfall was submitted to the PADEP and the USEPA on June 29, 2012.

The Pollock Street West End system was operational for the reporting period with the following exceptions.

- On July 9, the system was shut down for semi-annual pump maintenance. The system was restarted on July 11.
- On July 15, the system was down on high oil/water separator alarm. Due to low product recovery, the system was turned off.
- The system was restarted on December 16.

A total of 859,500 gallons of groundwater was recovered by the Pollock Street West End system during the second half of 2014. No LNAPL was recovered during the reporting period. Operational and performance data for the second half of 2014 can be found in **Attachment 1**.

The Pollock Street Vertical Well system consists of RW-101, RW-102, and RW-103. All other vertical wells were previously turned off or incorporated into the Pollock Street West End system. On April 4, 2013 the vertical recovery wells were turned off for main discharge line cleaning and the installation of a new pump at horizontal well HW-1. HW-1 maintained adequate drawdown; therefore, the Pollock Street Vertical Well system was not needed. The recovery equipment was removed from RW-101, RW-102, and RW-103 on August 2, 2013.

Horizontal wells HW-1, HW-2, and HW-3 were operational for the reporting period with the following exceptions.

- HW-1 remained off from July to August due to damage to the pump and motor.
- On July 21, HW-2 was inoperable; The drop tube was removed, cleaned, and reinstalled.
- On September 4, the HW-1 discharge line was flushed and a new pump and motor were installed.
- HW-1 was restarted on September 5, and the HW-2 discharge line was flushed.
- The HW-1 flow meter was clogged on September 9.
- On September 12, HW-1 was shut off to allow the well to recharge to static level. The system was restarted on September 15.
- The HW-1 flow meter was clogged on September 22 and September 29.
- On December 4, HW-1 was shut off due to a seized pump. The pump was replaced on December 9, and HW-1 was restarted.

The flow rates for the Pollock Street Horizontal Well Recovery system for the second half of 2014 are estimated to be as follows:

- HW-1: 10.00 gallons per minute (gpm)
- HW-2: 3.73 gpm
- HW-3: 15.38 gpm

Beginning May 25, 2013, HW-1 flow rates are measured and reported by totalizer. A total of 6,077,222 gallons of total fluids were recovered by the Pollock Street Horizontal Well Recovery system. Details of minor maintenance and system recovery totals for the second half of 2014 can be found in **Attachment 1**.

The Pollock Street Sewer outfall is checked by PES personnel and all findings are recorded. This practice will continue and any LNAPL will be handled with spill control equipment to minimize or prevent releases to the Schuylkill River. Evergreen has continued to maintain boom and sorbent sweeps around the tide gate area. Outfall cleaning, including the changing of sorbents and removal of any fugitive LNAPL from the outfall occurs a minimum of twice per week. The skimmer discharge was tied into the Pollock Street West End system treatment trailer during construction of the Pollock Street West End system.

The outfall skimmer was operational throughout this reporting period with the following exceptions.

- On July 15, the skimmer belt was missing and was replaced.
- The skimmer was shut off on July 21 due to the absence of product in the outfall and low product recovery at the Pollock Street West End system.
- The skimmer system was restarted on December 3.
- On December 9, the skimmer belt was stuck in the tide gate and snapped. The belt was removed from the tide gate on December 10 and replaced; however, the skimmer system remained off until December 16.
- On December 22, the skimmer system was inoperable. The skimmer head was removed, and the intake screen was cleaned.

Short Pier – Operation During the Second Half of 2014

There was no evidence of LNAPL migration to the river during the reporting period. Unless evidence of LNAPL migration to the river occurs, the system will remain offline.

AOI 3 – Impoundment Area

There are no groundwater or LNAPL recovery systems active in this area. The AOI 3 SCR/RIR was submitted to the PADEP and the USEPA on September 27, 2010. The SCR/RIR stated that given the limited occurrence and mobility of LNAPL observed in RW-2, the recovery system will remain offline. The disposition of remediation systems in AOI 3 will be revisited in the Cleanup Plan.

AOI 4 – No. 4 Tank Farm Area

Consent Order / Characterization Status

AOI 1 and AOI 4 were identified by Sunoco as the first areas of the refinery to be investigated in accordance with the Phase II Corrective Action Schedule included in the Current Conditions Report (CCR). Sunoco submitted to the PADEP and the USEPA a SCR for AOI 4 dated August 30, 2006. A repackaged SCR/RIR was submitted to the agencies on October 18, 2013. A “Disapproval of Remedial Investigation Report” was received from the PADEP on January 15, 2014.

Penrose Avenue Remediation System – Operation During the Second Half of 2014

Following characterization of AOI 4, Sunoco recommended the installation of a hydraulic control system on the southern border of AOI 4. This system is permitted for discharge by the Philadelphia Water Department (PWD) and Philadelphia Air Management Services (AMS). The installation of the remediation system was completed in December 2012 and following minor modifications to the system to facilitate water discharge monitoring in accordance with the PWD permit, the system was started on March 20, 2013.

The system was operational for the reporting period with the following exceptions.

- On September 4, the system was down on high oil/water separator alarm. The system remained off until September 23 when the Warwick controller was replaced.
- On October 21, October 22, and October 24, the system was down on high oil/water separator alarm.
- The system was down on high oil/water separator alarm on November 25.

A total of 2,162,800 gallons of groundwater and 37 gallons of LNAPL were recovered by this system during the reporting period. Details of minor maintenance as well as groundwater and product recovery totals for the second half of 2014 can be found in **Attachment 1**.

S-30 and S-36 LNAPL Recovery Systems – Operation During the Second Half of 2014

Due to the absence of recoverable product in the recovery wells, Evergreen recommends that S-30, S-34, S-35, and S-36 remain offline.

AOI 5 – Girard Point South Tank Field

Consent Order / Characterization Status

In accordance with the Site Wide Approach, a repackaged Site Characterization Report/Remedial Investigation Report/Cleanup Plan (SCR/RIR/Cleanup Plan) was submitted to the PADEP and the USEPA on December 13, 2011. Sunoco received a Remedial Investigation Report/Cleanup Plan Disapproval from the PADEP on March 15, 2012.

AOI 6 – Girard Point Chemicals Processing Area

Consent Order / Characterization Status

AOI 6 was identified by Sunoco as the third area of the refinery to be investigated in accordance with the Phase II Corrective Action Schedule included in the CCR. A SCR for AOI 6 was submitted to the PADEP and the USEPA on September 29, 2006. A repackaged SCR/RIR was submitted to the agencies on September 2, 2013. A Disapproval of Remedial Investigation Report/Disapproval of Site Characterization Report was received on November 27, 2013.

27 Pump House – Operation During the Second Half of 2014

The system was turned off September 20, 2010 due to absence of recoverable product. Recovery wells B-124, B-132, B-137, B-139, B-142, B-143, and B-147 contain absorbent socks. On April 10, 2013, socks were removed from B-132, B-137, B-139, and B-147 due to lack of product. On February 4, 2014, absorbent socks were placed back in B-137 and B-139. On February 19, the absorbent socks were removed from recovery wells B-137 and B-139. Absorbent socks were placed in B-137, B-139, B-142, and B-143 on June 3. On June 18, the absorbent wicks were

removed from B-137, B-139, and B-143. The absorbent sock in B-142 was removed on July 28. On December 9, an absorbent sock was placed in B-137.

During the reporting period, wells were routinely gauged and the absorbent socks were replaced when necessary. LNAPL recovery volumes are recorded using a graduated beaker and recovered product is transferred to the system holding tank. Based on limited recoverable LNAPL in the proximal wells, passive remediation will be discontinued.

Approximately 8 gallons of LNAPL were recovered using the above referenced methods. Recovery totals for the second half of 2014 can be found in **Attachment 1**.

AOI 7 – Girard Point Fuels Processing Area

Consent Order / Characterization Status

In accordance with the Site Wide Approach, a repackaged AOI 7 SCR/RIR was submitted to the PADEP and the USEPA on February 29, 2012. A RIR Addendum was submitted to the agencies on September 16, 2013.

No. 3 Separator / Bulkhead Area – Operation During the Second Half of 2014

On July 12, 2011, Sunoco reported a hydrocarbon sheen on the Schuylkill River to the National Response Center. The sheen was directly adjacent to the Girard Point No. 3 Separator. In response to the sheen on the river, Sunoco investigated the source of hydrocarbons to the river through the installation of monitoring wells and exploratory excavation around a process sewer junction box associated with the 137 Crude Unit and the No. 3 Separator. The monitoring wells demonstrated measurable oil on the water table, and the exploratory excavation revealed integrity issues with the junction box. The junction box and associated bulkhead penetration were sealed with concrete.

Construction of a ten recovery well hydraulic control system was completed on August 23, 2012. Groundwater and LNAPL are extracted using pneumatic submersible pumps and total fluids pass through an oil/water separator. Water is discharged to an on-site process sewer, and LNAPL is recovered in a tank and recycled by the refinery.

On March 19, 2013, the remediation system was shut down due to high level in the recovery tank. The tank was evacuated, and the system was restarted. Due to an increase in product recovery, the tank was placed on a more frequent evacuation schedule. The system recovery wells and performance monitoring wells were gauged. Well gauging demonstrated an increased thickness of oil in the recovery wells and performance monitoring wells. No oil was observed in the river. A release was verbally communicated by PES to Andrew Sinclair of the PADEP on March 28, 2013. PES initiated an investigation of the adjacent process sewer line which revealed breaches in the sewer line adjacent to a junction box. The PES investigation/repair was completed in April 2013. Any questions regarding the investigation or repair of the sewer should be directed to Chuck Barksdale at charles.barksdale@pes-companies.com.

A new oil/water separator was installed on July 3, 2013, and the system was restarted. The system was operational for the second half of 2014 with the following exception:

- The system was shut off from September 16 to September 17 for static gauging of the system recovery wells.

A total of 1,762,800 gallons of groundwater and 21,442 gallons of LNAPL were recovered by this system during the second half of 2014. Groundwater and product recovery for the reporting period can be found in **Attachment 1**.

AOI 8 – Point Breeze North Yard

Consent Order / Characterization Status

A repackaged SCR/RIR incorporating the PADEP's comments on AOI 8 was submitted to the PADEP and the USEPA on January 31, 2012.

PGW Border Recovery System – Operation During the Second Half of 2014

The PGW Total Fluids Recovery system is offline. The system is being evaluated for potential upgrade.

Jackson Street Sewer Area – Operation During the Second Half of 2014

The Jackson Street Sewer Total Fluids Recovery system is offline. Due to limited LNAPL presence in the area, the system will remain off unless there are significant increases in LNAPL in the proximal wells. The Jackson Street combined sewer overflow outfall ("CSO") is checked once per shift by PES refinery personnel for a sheen or the presence of LNAPL. There has been no evidence of sheening to the river throughout the second half of 2014.

Jackson Street Sewer Water Curtain – Operation During the Second Half of 2014

The Jackson Street Water Curtain was operational during the second half of 2014. Due to reliability issues, the flow meter for the water curtain was taken out of service. Water flow rate is irrelevant to system operation. System data for the second half of 2014 is included in **Attachment 1**.

Sunoco agreed at the July 30, 2009 meeting to sample the air in the sewer on-site and off-site following notification from the PADEP of a neighborhood (28th and McKean Streets) complaint. No complaints regarding sewer odors were received during the second half of 2014.

North Yard Bulkhead Area and No. 3 Tank Farm Separator – Operation During the Second Half of 2014

The system was taken offline due to limited LNAPL presence in the area. The system will remain off unless there are significant increases in LNAPL in the proximal wells.

AOI 9 – Schuylkill River Tank Farm

There are no groundwater or LNAPL recovery systems operational in the area. A SCR was submitted to the PADEP and the USEPA on October 30, 2009.

AOI 10 – West Yard

There are no groundwater or LNAPL recovery systems operational in the area. A SCR/RIR was submitted to the PADEP and the USEPA on June 29, 2011. Approval of the RIR was received from the PADEP on January 6, 2012.

AOI 11 – Deep Aquifer

The SCR/RIR was submitted to the PADEP and the USEPA on September 12, 2011. Sunoco received comments to the report by email on December 9, 2011. The Final Report was submitted to the agencies on June 21, 2013. Sunoco received a “Disapproval of Final Report” from the PADEP dated September 26, 2013.

Passyunk Avenue Sewer

The Passyunk Avenue Sewer CSO is checked by PES personnel once per shift at low tide and findings are recorded. LNAPL was not observed at the Schuylkill River outfall during the second half of 2014.

Groundwater Monitoring

The current monitoring program consists of quarterly groundwater and LNAPL gauging of select wells, annual groundwater and LNAPL gauging of site-wide wells, and annual groundwater sampling of select perimeter monitoring wells. During the first, third and fourth quarters, select wells are gauged to monitor LNAPL thickness and determine hydraulic effects of targeted recovery systems. The site-wide annual well gauging event is typically conducted during the second quarter of each year with results used to identify the presence of LNAPL and determine groundwater flow patterns. Liquid level measurements collected during the third quarter of 2014 are provided in **Table 1**. The fourth quarter 2014 liquid level measurements are provided in **Table 2** of this report.

The purpose of the annual groundwater sampling event is to evaluate concentration trends at the perimeter of the refinery. The annual groundwater sampling program consists of sampling select wells throughout the Point Breeze and Girard Point Processing Areas and has historically been performed during the fourth quarter of each year. However, this year and in future years, annual perimeter groundwater sampling will be performed in the second quarter in conjunction with annual site-wide gauging. The annual site-wide groundwater sampling event was conducted in May 2014.

Please contact me at (302) 477-0192 or jroppenheim@evergreenresmgt.com with any questions or comments.

Best Regards,



James Oppenheim, PE
Vice President

Enclosures (electronic):

- Figure 1 – Site Location Map
- Figure 2 – Remediation System Areas Site Plan
- Table 1 – Third Quarter 2014 Gauging Data
- Table 2 – Fourth Quarter 2014 Gauging Data
- Attachment 1 – Remediation System Recovery Data

cc: Mr. Paul Gotthold
United States Environmental Protection Agency
1650 Arch Street
Philadelphia, Pennsylvania 19103

Mr. Nicholas Maliha, PE
Philadelphia Water Department
1101 Market Street, ARA Mark, 4th Floor
Philadelphia, Pennsylvania 19107

Mr. Charles D. Barksdale, Jr. PE
PES Refining & Marketing, LLC
3144 Passyunk Avenue
Philadelphia, Pennsylvania 19145

Ms. Jennifer Menges
Stantec Consulting Services Inc.
1060 Andrew Drive, Suite 140
West Chester, Pennsylvania 19380

File: Philadelphia Refinery Remediation Program
Groundwater Remediation Status Report, Second Half 2014

TABLES

Table 1
Third Quarter 2014 Gauging Data
Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	Well Classification	Recovery Well Y or N	Static or Pumping	Comments
AOI 1	ARCO-1	8/13/2014	---	26.29	---	Intermediate	No	Static	
AOI 1	ARCO-1D	8/13/2014	---	26.29	---	Deep	No	Static	
AOI 1	ARCO-2	8/13/2014	---	25.43	---	Intermediate	No	Static	
AOI 1	ARCO-3	8/13/2014	---	24.20	---	Intermediate	No	Static	
AOI 1	MW-26	8/13/2014	21.69	22.95	1.26	Shallow	No	Static	
AOI 1	MW-27	8/13/2014	23.67	23.75	0.08	Shallow	No	Static	
AOI 1	MW-28	8/13/2014	---	23.93	---	Intermediate	No	Static	
AOI 1	MW-29	8/13/2014	23.45	25.87	2.42	Intermediate	No	Static	
AOI 1	MW-30	8/13/2014	---	27.02	---	Shallow	No	Static	
AOI 1	MW-31	8/13/2014	---	25.42	---	Shallow	No	Static	
AOI 1	MW-32	8/13/2014	---	24.38	---	Intermediate	No	Static	
AOI 1	MW-33	8/13/2014	---	25.22	---	Shallow	No	Static	
AOI 1	MW-35	8/13/2014	---	26.40	---	Intermediate	No	Static	
AOI 1	MW-36	8/13/2014	---	27.46	---	Intermediate	No	Static	
AOI 1	MW-37	8/13/2014	---	26.61	---	Intermediate	No	Static	
AOI 1	MW-38	8/13/2014	---	22.87	---	Intermediate	No	Static	
AOI 1	MW-39	8/13/2014	---	22.79	---	Intermediate	No	Static	
AOI 1	MW-40	8/13/2014	23.09	23.45	0.36	Intermediate	No	Static	
AOI 1	MW-41	8/13/2014	---	22.54	---	Intermediate	No	Static	
AOI 1	MW-43	8/13/2014	---	25.83	---	Intermediate	No	Static	
AOI 1	MW-44	8/13/2014	---	25.28	---	Intermediate	No	Static	
AOI 1	OW-2	8/13/2014	---	26.53	---	Shallow	No	Static	
AOI 1	OW-12	8/13/2014	---	25.05	---	Shallow	No	Static	
AOI 1	OW-13	8/13/2014	---	27.13	---	Shallow	No	Static	
AOI 1	OW-14	8/13/2014	---	27.27	---	Shallow	No	Static	
AOI 1	OW-16	8/13/2014	NA	NA	NA	Shallow	No	Static	Not accessible - vehicle parked on top of well.
AOI 1	OW-17	8/13/2014	---	25.51	---	Shallow	No	Static	
AOI 1	OW-18	8/13/2014	---	26.62	---	Intermediate	No	Static	
AOI 1	OW-19	8/13/2014	---	25.48	---	Intermediate	No	Static	
AOI 1	OW-20	8/13/2014	---	26.52	---	Shallow	No	Static	
AOI 1	PZ-400	8/13/2014	---	23.44	---	Shallow	No	Static	
AOI 1	RW-1	8/13/2014	---	24.75	---	Intermediate	Yes	Static	
AOI 1	RW-4	8/13/2014	NA	NA	NA	Intermediate	Yes	Static	Not accessible - steel plate over well vault.
AOI 1	RW-6	8/13/2014	---	26.08	---	Intermediate	Yes	Static	
AOI 1	RW-7	8/13/2014	---	23.20	---	Intermediate	Yes	Static	
AOI 1	RW-15	8/13/2014	---	26.23	---	Intermediate	Yes	Static	
AOI 1	RW-21	8/13/2014	---	23.86	---	Shallow	Yes	Static	
AOI 1	RW-22	8/13/2014	---	22.05	---	Shallow	Yes	Static	
AOI 1	RW-23	8/13/2014	22.06	22.35	0.29	Intermediate	Yes	Static	
AOI 1	RW-24	8/13/2014	---	22.29	---	Intermediate	Yes	Static	
AOI 1	RW-25	8/13/2014	25.02	25.85	0.83	Intermediate	Yes	Static	
AOI 1	RW-26	8/13/2014	---	24.16	---	Intermediate	Yes	Static	
AOI 1	RW-27	8/13/2014	---	25.54	---	Intermediate	Yes	Static	
AOI 1	RW-28	8/13/2014	---	25.10	---	Intermediate	Yes	Static	
AOI 1	RW-29	8/13/2014	---	25.23	---	Intermediate	Yes	Static	
AOI 1	RW-30	8/13/2014	---	25.11	---	Intermediate	Yes	Static	
AOI 1	RW-31	8/13/2014	---	25.09	---	Intermediate	Yes	Static	
AOI 1	RW-32	8/18/2014	---	22.73	---	Intermediate	Yes	Static	
AOI 1	RW-400	8/13/2014	---	23.50	---	Intermediate	Yes	Pumping	
AOI 1	S-41	8/13/2014	---	26.24	---	Intermediate	No	Static	
AOI 1	S-421	8/13/2014	---	24.80	---	Intermediate	No	Static	Formerly S-42D
AOI 1	S-43	8/13/2014	---	23.37	---	Intermediate	No	Static	
AOI 1	S-44	8/13/2014	---	25.07	---	Intermediate	No	Static	
AOI 1	S-45	8/13/2014	---	21.14	---	Intermediate	No	Static	
AOI 1	S-46	8/13/2014	---	21.31	---	Intermediate	No	Static	Pollock Street sewer recovery well (vicinity).
AOI 1	S-46D	8/13/2014	---	14.29	---	Deep	No	Static	Pollock Street sewer recovery well (vicinity).
AOI 1	S-471	8/13/2014	---	20.92	---	Intermediate	No	Static	Pollock Street sewer recovery well (vicinity); Formerly S-47D
AOI 1	S-50	8/13/2014	---	22.27	---	Shallow	No	Static	
AOI 1	S-51	8/13/2014	---	21.84	---	Shallow	No	Static	
AOI 1	S-52	8/13/2014	---	22.46	---	Intermediate	No	Static	
AOI 1	S-74	8/13/2014	---	25.30	---	Shallow	No	Static	
AOI 1	S-75	8/13/2014	---	26.55	---	Shallow	No	Static	
AOI 1	S-76	8/13/2014	26.20	26.67	0.47	Shallow	No	Static	
AOI 1	S-98	8/13/2014	---	22.60	---	Intermediate	No	Static	
AOI 1	S-99	8/13/2014	---	24.62	---	Intermediate	No	Static	
AOI 1	S-100	8/13/2014	22.34	23.73	1.39	Intermediate	No	Static	
AOI 1	S-101	8/13/2014	NA	NA	NA	Intermediate	No	Static	Unable to locate under heavy vegetation.
AOI 1	S-117	8/13/2014	---	16.52	---	Shallow	No	Static	
AOI 1	S-127	8/13/2014	---	16.08	---	Shallow	No	Static	
AOI 1	S-162	8/13/2014	NA	NA	NA	Shallow	No	Static	Not accessible - area around well is flooded.
AOI 1	S-164	8/18/2014	---	15.50	---	Shallow	No	Static	
AOI 1	S-193	8/13/2014	---	23.42	---	Intermediate	Yes	Static	
AOI 1	S-194	8/13/2014	---	25.55	---	Shallow	No	Static	
AOI 1	S-196	8/13/2014	---	45.10	---	Shallow	No	Static	

Table 1
Third Quarter 2014 Gauging Data
Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	Well Classification	Recovery Well Y or N	Static or Pumping	Comments
AOI 1	S-208	8/13/2014	---	19.06	---	Intermediate	No	Static	
AOI 1	S-209	8/13/2014	---	25.60	---	Intermediate	No	Static	
AOI 1	S-210	8/13/2014	23.36	23.64	0.28	Intermediate	No	Static	
AOI 1	S-211	8/13/2014	---	13.77	---	Intermediate	No	Static	Pollock Street sewer recovery well (vicinity).
AOI 1	S-212	8/13/2014	---	17.16	---	Intermediate	No	Static	Pollock Street sewer recovery well (vicinity).
AOI 1	S-213	8/13/2014	---	13.79	---	Intermediate	No	Static	Pollock Street sewer recovery well (vicinity).
AOI 1	S-226	8/13/2014	---	21.45	---	Intermediate	No	Static	
AOI 1	S-227	8/13/2014	---	22.01	---	Intermediate	No	Static	
AOI 1	S-228	8/13/2014	---	21.34	---	Intermediate	No	Static	
AOI 1	S-230	8/13/2014	---	19.53	---	Intermediate	No	Static	
AOI 1	S-231	8/13/2014	---	19.80	---	Intermediate	No	Static	
AOI 1	S-232	8/13/2014	---	20.50	---	Intermediate	No	Static	
AOI 1	S-255	8/18/2014	---	22.31	---	Intermediate	No	Static	
AOI 1	S-256	8/13/2014	---	21.39	---	Intermediate	No	Static	
AOI 1	S-257	8/13/2014	---	23.05	---	Intermediate	No	Static	
AOI 1	S-258	8/13/2014	---	23.46	---	Intermediate	No	Static	
AOI 1	S-259	8/13/2014	---	23.39	---	Intermediate	No	Static	
AOI 1	S-260	8/13/2014	---	23.05	---	Intermediate	No	Static	
AOI 1	S-264D	8/13/2014	---	25.68	---	Deep	No	Static	
AOI 1	S-265	8/13/2014	13.86	13.87	0.01	Intermediate	Yes	Static	
AOI 1	S-267	8/13/2014	---	17.36	---	Intermediate	Yes	Static	
AOI 1	S-268	8/13/2014	---	26.47	---	Intermediate	Yes	Static	Formerly S-264; CSX Well
AOI 1	S-269	8/13/2014	---	19.82	---	Intermediate	No	Static	
AOI 1	S-270	8/13/2014	---	21.14	---	Intermediate	No	Static	
AOI 1	S-312	8/13/2014	---	6.60	---	Shallow/Intermediate	No	Static	
AOI 1	S-330	8/13/2014	---	25.07	---	Intermediate	No	Static	
AOI 1	S-331	8/13/2014	---	27.08	---	Intermediate	No	Static	
AOI 1	S-388D	8/13/2014	---	24.94	---	Deep	No	Static	
AOI 1	S-393D	8/13/2014	---	29.03	---	Deep	No	Static	
AOI 1	S-394	8/13/2014	---	29.21	---	Deep	No	Static	
AOI 1	S-395	8/13/2014	---	27.12	---	Shallow	No	Static	
AOI 1	S-398	8/13/2014	---	24.35	---	Intermediate	No	Static	
AOI 1	TW-3	8/13/2014	---	26.85	---	Shallow	No	Static	
AOI 1	TW-5	8/13/2014	---	26.88	---	Shallow	No	Static	
AOI 1	TW-8	8/13/2014	---	25.33	---	Shallow	No	Static	
AOI 1	TW-9	8/13/2014	---	27.10	---	Shallow	No	Static	
AOI 1	TW-10	8/13/2014	---	25.39	---	Shallow	No	Static	
AOI 1	TW-11	8/13/2014	---	26.50	---	Shallow	No	Static	
AOI 2	C-HEADER	8/12/2014	---	14.26	---	Shallow/Intermediate	No	Static	
AOI 2	PZ-100	8/12/2014	---	14.70	---	Shallow	No	Static	
AOI 2	PZ-101	8/12/2014	---	10.26	---	Shallow	No	Static	
AOI 2	River1	8/12/2014	---	12.50	---	NA	No	NA	
AOI 2	River3	8/12/2014	---	11.90	---	NA	No	NA	
AOI 2	RW-100	8/12/2014	17.89	18.24	0.35	Shallow	Yes	Static	
AOI 2	RW-101	8/12/2014	16.65	17.37	0.72	Shallow	Yes	Static	
AOI 2	RW-102	8/12/2014	14.55	14.56	0.01	Shallow	Yes	Static	
AOI 2	RW-103	8/12/2014	16.55	17.41	0.86	Shallow	Yes	Static	
AOI 2	RW-104	8/12/2014	---	9.88	---	Shallow	Yes	Static	
AOI 2	RW-105	8/12/2014	---	7.25	---	Shallow	Yes	Static	
AOI 2	RW-106	8/12/2014	6.87	6.87	<0.01	Shallow	Yes	Static	
AOI 2	RW-107	8/12/2014	---	8.85	---	Shallow	Yes	Static	
AOI 2	RW-108	8/12/2014	---	7.58	---	Shallow	Yes	Static	
AOI 2	RW-109	8/12/2014	---	7.31	---	Shallow	Yes	Static	
AOI 2	RW-113	8/12/2014	---	7.99	---	Shallow	Yes	Static	
AOI 2	RW-114	8/12/2014	---	10.71	---	Shallow	Yes	Static	
AOI 2	RW-115	8/12/2014	---	7.90	---	Shallow	Yes	Static	
AOI 2	RW-116	8/12/2014	---	8.39	---	Shallow	Yes	Static	
AOI 2	RW-117	8/12/2014	7.40	7.52	0.12	Shallow	Yes	Static	
AOI 2	RW-118	8/12/2014	9.37	9.39	0.02	Shallow	Yes	Static	
AOI 2	RW-119	8/12/2014	10.36	10.36	<0.01	Shallow	Yes	Static	
AOI 2	RW-120	8/12/2014	11.18	11.18	<0.01	Shallow	Yes	Static	No pump installed.
AOI 2	RW-121	8/12/2014	---	12.83	---	Shallow/Intermediate	Yes	Static	
AOI 2	RW-122	8/12/2014	7.90	7.90	<0.01	Shallow	Yes	Static	No pump installed.
AOI 2	RW-123	8/12/2014	---	7.54	---	Shallow	Yes	Static	
AOI 2	RW-124	8/12/2014	6.75	6.75	<0.01	Shallow	Yes	Static	
AOI 2	RW-125	8/12/2014	---	12.06	---	Shallow	Yes	Static	
AOI 2	RW-126	8/12/2014	7.07	7.07	<0.01	Shallow	Yes	Static	
AOI 2	RW-127	8/12/2014	---	11.52	---	Shallow	Yes	Static	
AOI 2	RW-128	8/12/2014	7.55	7.55	<0.01	Shallow	Yes	Static	
AOI 2	RW-129	8/12/2014	---	8.30	---	Shallow	Yes	Static	
AOI 2	RW-600	8/12/2014	---	2.38	---	Shallow/Intermediate	No	Static	
AOI 2	RW-601	8/12/2014	---	8.60	---	Shallow/Intermediate	Yes	Static	
AOI 2	S-48	8/12/2014	19.72	19.86	0.14	Shallow/Intermediate	No	Static	
AOI 2	S-53	8/12/2014	18.46	18.73	0.27	Shallow	No	Static	

Table 1
Third Quarter 2014 Gauging Data
Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	Well Classification	Recovery Well Y or N	Static or Pumping	Comments
AOI 2	S-54	8/12/2014	21.57	21.95	0.38	Intermediate	No	Static	
AOI 2	S-61	8/12/2014	16.47	16.48	0.01	Shallow/Intermediate	No	Static	
AOI 2	S-62	8/12/2014	---	18.50	---	Intermediate	No	Static	
AOI 2	S-63	8/12/2014	---	18.83	---	Shallow	No	Static	
AOI 2	S-64	8/12/2014	---	6.15	---	Shallow/Intermediate	No	Static	
AOI 2	S-65	8/12/2014	9.33	9.34	0.01	Shallow/Intermediate	No	Static	
AOI 2	S-70	8/12/2014	NA	NA	NA	Shallow/Intermediate	No	Static	Unable to locate under stone.
AOI 2	S-91	8/12/2014	19.61	19.62	0.01	Intermediate	No	Static	
AOI 2	S-92	8/12/2014	11.24	11.25	0.01	Intermediate	No	Static	
AOI 2	S-93	8/12/2014	---	15.67	---	Intermediate	Yes	Static	
AOI 2	S-130	8/12/2014	DRY	DRY	DRY	Shallow/Intermediate	No	Static	Well is dry at 19.80 ft. btoc.
AOI 2	S-131	8/12/2014	15.65	16.95	1.30	Shallow	No	Static	
AOI 2	S-132	8/12/2014	---	18.51	---	Shallow/Intermediate	No	Static	
AOI 2	S-133	8/12/2014	---	18.98	---	Shallow/Intermediate	No	Static	
AOI 2	S-134	8/12/2014	---	20.30	---	Shallow/Intermediate	No	Static	
AOI 2	S-135	8/12/2014	21.03	23.80	2.77	Shallow	No	Static	
AOI 2	S-136	8/12/2014	---	18.05	---	Shallow/Intermediate	No	Static	
AOI 2	S-137	8/12/2014	NA	NA	NA	Shallow/Intermediate	No	Static	Not accessible - well is under equipment.
AOI 2	S-139	8/12/2014	---	18.17	---	Shallow/Intermediate	No	Static	
AOI 2	S-140	8/12/2014	---	18.94	---	Shallow/Intermediate	No	Static	
AOI 2	S-141	8/12/2014	18.83	19.59	0.76	Shallow/Intermediate	No	Static	
AOI 2	S-142	8/12/2014	16.54	17.22	0.68	Shallow	No	Static	
AOI 2	S-143	8/12/2014	NM	NM	NM	Shallow/Intermediate	No	Static	Well obstructed at 9.60 ft. btoc.
AOI 2	S-156	8/12/2014	18.12	18.22	0.10	Shallow	No	Static	
AOI 2	S-157	8/12/2014	16.70	18.50	1.80	Shallow/Intermediate	No	Static	
AOI 2	S-159	8/12/2014	---	15.93	---	Shallow/Intermediate	No	Static	
AOI 2	S-165	8/12/2014	---	16.72	---	Shallow/Intermediate	No	Static	
AOI 2	S-166	8/12/2014	---	15.84	---	Shallow/Intermediate	No	Static	
AOI 2	S-174	8/12/2014	10.73	12.60	1.87	Shallow	No	Static	
AOI 2	S-175	8/12/2014	17.71	19.73	2.02	Shallow	No	Static	
AOI 2	S-177	8/12/2014	NA	NA	NA	Shallow/Intermediate	No	Static	Not accessible - area around well is flooded.
AOI 2	S-178	8/12/2014	NA	NA	NA	Shallow/Intermediate	No	Static	Not accessible - area around well is flooded.
AOI 2	S-246A	8/12/2014	---	9.89	---	Shallow/Intermediate	No	Static	
AOI 2	S-247	8/12/2014	---	10.37	---	Shallow/Intermediate	No	Static	
AOI 2	S-248	8/12/2014	---	9.06	---	Shallow/Intermediate	No	Static	
AOI 2	S-249	8/12/2014	---	9.88	---	Shallow/Intermediate	No	Static	
AOI 2	S-251	8/12/2014	---	16.70	---	Shallow/Intermediate	Yes	Static	
AOI 2	S-252	8/12/2014	---	16.77	---	Shallow/Intermediate	Yes	Static	
AOI 2	S-253	8/12/2014	---	17.91	---	Shallow/Intermediate	Yes	Static	
AOI 2	S-254	8/12/2014	---	18.31	---	Shallow/Intermediate	Yes	Static	
AOI 2	S-302	8/12/2014	21.08	21.36	0.28	Intermediate	No	Static	
AOI 2	S-302D	8/12/2014	---	24.65	---	Deep	No	Static	
AOI 2	S-303	8/12/2014	---	19.23	---	Shallow/Intermediate	No	Static	
AOI 2	S-304	8/12/2014	12.82	12.85	0.03	Shallow/Intermediate	No	Static	
AOI 2	S-305	8/12/2014	---	18.48	---	Intermediate	No	Static	
AOI 2	S-305D	8/12/2014	---	19.61	---	Deep	No	Static	
AOI 2	S-306	8/12/2014	---	17.40	---	Intermediate	No	Static	
AOI 2	S-307	8/12/2014	---	15.90	---	Shallow/Intermediate	No	Static	
AOI 2	S-309	8/12/2014	---	17.52	---	Shallow/Intermediate	No	Static	
AOI 2	S-310	8/12/2014	---	10.17	---	Shallow/Intermediate	No	Static	
AOI 2	S-311	8/12/2014	24.86	25.02	0.16	Intermediate	No	Static	
AOI 2	S-313	8/12/2014	---	17.93	---	Shallow	No	Static	
AOI 2	S-314	8/12/2014	---	18.06	---	Shallow	Yes	Static	
AOI 2	S-315	8/12/2014	---	18.25	---	Shallow	No	Static	
AOI 2	S-316	8/12/2014	---	17.10	---	Shallow	Yes	Static	
AOI 2	S-317	8/12/2014	---	17.50	---	Shallow	Yes	Static	
AOI 2	S-318	8/12/2014	---	21.41	---	Shallow/Intermediate	No	Static	
AOI 2	S-333	8/12/2014	---	11.95	---	Shallow/Intermediate	No	Static	
AOI 2	S-346	8/12/2014	18.03	18.95	0.92	Shallow/Intermediate	No	Static	
AOI 2	S-347	8/12/2014	17.69	18.62	0.93	Shallow/Intermediate	No	Static	
AOI 2	S-348	8/12/2014	12.25	12.67	0.42	Shallow/Intermediate	No	Static	
AOI 2	S-349	8/12/2014	14.72	14.87	0.15	Shallow/Intermediate	No	Static	
AOI 2	S-350	8/12/2014	---	26.49	---	Shallow/Intermediate	No	Static	
AOI 2	S-351	8/12/2014	---	30.25	---	Shallow/Intermediate	No	Static	
AOI 2	S-359	8/12/2014	16.95	16.95	<0.01	Shallow/Intermediate	No	Static	
AOI 2	S-360	8/12/2014	22.40	22.54	0.14	Shallow/Intermediate	No	Static	
AOI 2	S-361	8/12/2014	---	23.35	---	Shallow/Intermediate	No	Static	
AOI 2	S-362	8/12/2014	NM	NM	NM	Shallow/Intermediate	No	Static	Well collapsed at 3.65 ft. btoc.
AOI 2	S-363	8/12/2014	24.72	24.74	0.02	Shallow/Intermediate	No	Static	
AOI 2	S-406	8/12/2014	---	9.47	---	Shallow/Intermediate	No	Static	Formerly Warehouse MW-2
AOI 3	RW-2	8/11/2014	11.25	11.59	0.34	Intermediate	Yes	Static	
AOI 4	RW-700	8/11/2014	---	20.25	---	Intermediate	Yes	Pumping	
AOI 4	RW-701	8/11/2014	---	20.80	---	Intermediate	Yes	Pumping	
AOI 4	RW-702	8/11/2014	---	29.15	---	Intermediate	Yes	Pumping	

Table 1
Third Quarter 2014 Gauging Data
Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	Well Classification	Recovery Well Y or N	Static or Pumping	Comments
AOI 4	RW-703	8/11/2014	---	25.35	---	Intermediate	Yes	Pumping	
AOI 4	RW-704	8/11/2014	---	21.90	---	Intermediate	Yes	Pumping	
AOI 4	RW-705	8/11/2014	---	14.90	---	Intermediate	Yes	Static	
AOI 4	RW-706	8/11/2014	---	14.00	---	Intermediate	Yes	Pumping	
AOI 4	RW-707	8/11/2014	---	15.21	---	Intermediate	Yes	Static	
AOI 4	RW-708	8/11/2014	---	13.25	---	Intermediate	Yes	Pumping	
AOI 4	RW-709	8/11/2014	---	14.30	---	Intermediate	Yes	Pumping	
AOI 4	RW-710	8/11/2014	---	15.08	---	Intermediate	Yes	Static	
AOI 4	RW-711	8/11/2014	---	13.55	---	Intermediate	Yes	Pumping	
AOI 4	RW-712	8/11/2014	---	13.15	---	Intermediate	Yes	Pumping	
AOI 4	RW-713	8/11/2014	---	14.05	---	Intermediate	Yes	Pumping	
AOI 4	RW-714	8/11/2014	---	12.30	---	Intermediate	Yes	Pumping	
AOI 4	RW-715	8/11/2014	---	14.33	---	Intermediate	Yes	Static	
AOI 4	RW-716	8/11/2014	---	13.60	---	Intermediate	Yes	Static	
AOI 4	RW-717	8/11/2014	---	14.53	---	Intermediate	Yes	Static	
AOI 4	S-29	8/11/2014	19.87	23.39	3.52	Intermediate	No	Static	
AOI 4	S-30	8/11/2014	20.72	28.51	7.79	Intermediate	Yes	Static	
AOI 4	S-34	8/11/2014	---	20.06	---	Shallow	No	Static	
AOI 4	S-35	8/11/2014	---	20.07	---	Shallow	No	Static	
AOI 4	S-36	8/11/2014	23.14	23.14	<0.01	Shallow	No	Static	
AOI 5	RWBH-1	8/11/2014	---	3.43	---	Shallow	Yes	Static	
AOI 5	RWBH-2	8/11/2014	---	2.76	---	Shallow	Yes	Static	
AOI 6	B-124	8/11/2014	5.50	5.51	0.01	Shallow	Yes	Static	
AOI 6	B-132	8/11/2014	4.88	4.97	0.09	Shallow	No	Static	
AOI 6	B-135	8/11/2014	4.91	4.93	0.02	Shallow	No	Static	
AOI 6	B-136	8/11/2014	4.92	4.94	0.02	Shallow	Yes	Static	
AOI 6	B-137	8/11/2014	4.45	4.61	0.16	Shallow	Yes	Static	
AOI 6	B-139	8/11/2014	5.65	5.66	0.01	Shallow	Yes	Static	
AOI 6	B-142	8/11/2014	7.12	7.12	<0.01	Shallow	Yes	Static	
AOI 6	B-143	8/11/2014	5.34	5.34	<0.01	Shallow	Yes	Static	
AOI 6	B-147	8/18/2014	5.91	5.99	0.08	Shallow	Yes	Static	
AOI 7	RW-801	8/11/2014	---	19.90	---	Shallow	Yes	Pumping	
AOI 7	RW-802	8/11/2014	21.00	21.00	<0.01	Shallow	Yes	Pumping	
AOI 7	RW-803	8/11/2014	22.20	24.37	2.17	Shallow	Yes	Pumping	
AOI 7	RW-804	8/11/2014	---	20.80	---	Shallow	Yes	Pumping	Formerly C-170
AOI 7	RW-805	8/11/2014	---	17.60	---	Shallow	Yes	Pumping	
AOI 7	RW-806	8/11/2014	---	20.20	---	Shallow	Yes	Pumping	
AOI 7	RW-807	8/11/2014	---	18.70	---	Shallow	Yes	Pumping	
AOI 7	RW-808	8/11/2014	18.78	18.78	<0.01	Shallow	Yes	Pumping	
AOI 7	RW-809	8/11/2014	---	19.75	---	Shallow	Yes	Pumping	
AOI 7	RW-810	8/11/2014	---	19.00	---	Shallow	Yes	Pumping	
AOI 8	RW-200	8/11/2014	---	6.15	---	Intermediate	Yes	Static	
AOI 8	RW-201	8/11/2014	22.93	23.40	0.47	Intermediate	Yes	Static	
AOI 8	RW-202	8/11/2014	---	20.30	---	Intermediate	Yes	Static	
AOI 8	RW-203	8/11/2014	22.30	22.46	0.16	Intermediate	Yes	Static	
AOI 8	RW-204	8/11/2014	18.93	20.72	1.79	Intermediate	Yes	Static	
AOI 8	RW-205	8/11/2014	18.60	21.35	2.75	Intermediate	Yes	Static	
AOI 8	RW-206	8/11/2014	20.60	22.15	1.55	Intermediate	Yes	Static	
AOI 8	RW-500	8/11/2014	---	3.27	---	Intermediate	Yes	Static	
AOI 8	RW-501	8/11/2014	---	6.58	---	Intermediate	Yes	Static	
AOI 8	RW-502	8/11/2014	8.77	9.30	0.53	Intermediate	Yes	Static	

NOTES:

All measurements are in feet.

LNAPL = Light Non-Aqueous Phase Liquid

--- = LNAPL not present

NM = Field reading not measured and/or corrected groundwater elevation not calculated due to lack of surveyed reference elevation

NA = Not Accessible, Not Applicable, or Not Available

DRY = Well was dry at time of gauging

Table 2
Fourth Quarter 2014 Gauging Data
Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	Well Classification	Recovery Well Y or N	Static or Pumping	Comments
AOI 1	ARCO-1	12/1/2014	---	27.29	---	Intermediate	No	Static	
AOI 1	ARCO-1D	12/1/2014	---	27.10	---	Deep	No	Static	
AOI 1	ARCO-2	12/1/2014	---	26.37	---	Intermediate	No	Static	
AOI 1	ARCO-3	12/1/2014	---	25.04	---	Intermediate	No	Static	
AOI 1	MW-26	12/1/2014	22.07	23.32	1.25	Shallow	No	Static	
AOI 1	MW-27	12/1/2014	24.24	24.40	0.16	Shallow	No	Static	
AOI 1	MW-28	12/1/2014	---	24.49	---	Intermediate	No	Static	
AOI 1	MW-29	12/1/2014	24.23	26.13	1.90	Intermediate	No	Static	
AOI 1	MW-30	12/1/2014	---	27.35	---	Shallow	No	Static	
AOI 1	MW-31	12/1/2014	---	25.61	---	Shallow	No	Static	
AOI 1	MW-32	12/1/2014	---	24.93	---	Intermediate	No	Static	
AOI 1	MW-33	12/1/2014	---	24.86	---	Shallow	No	Static	
AOI 1	MW-35	12/1/2014	---	26.80	---	Intermediate	No	Static	
AOI 1	MW-36	12/1/2014	---	27.93	---	Intermediate	No	Static	
AOI 1	MW-37	12/1/2014	---	27.10	---	Intermediate	No	Static	
AOI 1	MW-38	12/1/2014	---	23.26	---	Intermediate	No	Static	
AOI 1	MW-39	12/1/2014	---	23.17	---	Intermediate	No	Static	
AOI 1	MW-40	12/1/2014	23.40	23.77	0.37	Intermediate	No	Static	
AOI 1	MW-41	12/1/2014	---	22.92	---	Intermediate	No	Static	
AOI 1	MW-43	12/1/2014	---	26.29	---	Intermediate	No	Static	
AOI 1	MW-44	12/1/2014	---	25.47	---	Intermediate	No	Static	
AOI 1	OW-2	12/1/2014	---	26.98	---	Shallow	No	Static	
AOI 1	OW-12	12/1/2014	---	25.54	---	Shallow	No	Static	
AOI 1	OW-13	12/1/2014	---	27.62	---	Shallow	No	Static	
AOI 1	OW-14	12/1/2014	---	27.71	---	Shallow	No	Static	
AOI 1	OW-16	12/1/2014	26.74	26.92	0.18	Shallow	No	Static	
AOI 1	OW-17	12/1/2014	---	25.92	---	Shallow	No	Static	
AOI 1	OW-18	12/1/2014	---	27.00	---	Intermediate	No	Static	
AOI 1	OW-19	12/1/2014	NA	NA	NA	Intermediate	No	Static	Not accessible - blocked by vehicle.
AOI 1	OW-20	12/1/2014	---	27.24	---	Shallow	No	Static	
AOI 1	PZ-400	12/1/2014	---	23.74	---	Shallow	No	Static	
AOI 1	PZ-401	12/1/2014	19.81	19.82	0.01	Shallow	No	Static	
AOI 1	PZ-402	12/1/2014	19.56	19.75	0.19	Shallow	No	Static	
AOI 1	PZ-403	12/1/2014	23.09	23.10	0.01	Shallow	No	Static	
AOI 1	PZ-404	12/1/2014	26.45	26.70	0.25	Shallow	No	Static	
AOI 1	RW-1	12/1/2014	NA	NA	NA	Intermediate	Yes	Static	Not accessible - blocked by vehicle.
AOI 1	RW-4	12/1/2014	23.72	27.75	4.03	Intermediate	Yes	Static	
AOI 1	RW-6	12/1/2014	---	26.55	---	Intermediate	Yes	Static	
AOI 1	RW-7	12/2/2014	---	23.62	---	Intermediate	Yes	Static	
AOI 1	RW-15	12/1/2014	---	26.63	---	Intermediate	Yes	Static	
AOI 1	RW-21	12/1/2014	---	24.32	---	Shallow	Yes	Static	
AOI 1	RW-22	12/1/2014	22.49	22.51	0.02	Shallow	Yes	Static	
AOI 1	RW-23	12/1/2014	22.67	22.93	0.26	Intermediate	Yes	Static	
AOI 1	RW-24	12/1/2014	---	22.70	---	Intermediate	Yes	Static	
AOI 1	RW-25	12/1/2014	25.45	26.25	0.80	Intermediate	Yes	Static	
AOI 1	RW-26	12/1/2014	---	25.38	---	Intermediate	Yes	Static	
AOI 1	RW-27	12/1/2014	---	25.92	---	Intermediate	Yes	Static	
AOI 1	RW-28	12/1/2014	---	25.25	---	Intermediate	Yes	Static	
AOI 1	RW-29	12/1/2014	---	25.60	---	Intermediate	Yes	Static	
AOI 1	RW-30	12/1/2014	---	25.45	---	Intermediate	Yes	Static	
AOI 1	RW-31	12/1/2014	---	25.54	---	Intermediate	Yes	Static	
AOI 1	RW-32	12/1/2014	---	20.03	---	Intermediate	Yes	Static	
AOI 1	RW-110	12/1/2014	---	16.95	---	Shallow	Yes	Static	
AOI 1	RW-111	12/1/2014	---	17.02	---	Shallow	Yes	Static	
AOI 1	RW-112	12/1/2014	---	16.97	---	Shallow	Yes	Static	
AOI 1	RW-400	12/1/2014	---	23.78	---	Intermediate	Yes	Static	
AOI 1	RW-401	12/2/2014	20.88	21.35	0.47	Intermediate	Yes	Static	
AOI 1	RW-402	12/1/2014	---	17.91	---	Intermediate	Yes	Static	
AOI 1	RW-403	12/1/2014	---	22.17	---	Intermediate	Yes	Static	
AOI 1	RW-404	12/1/2014	---	22.69	---	Intermediate	Yes	Static	
AOI 1	RW-405	12/1/2014	24.69	24.70	0.01	Intermediate	Yes	Static	
AOI 1	RW-406	12/2/2014	23.22	23.22	<0.01	Intermediate	Yes	Static	
AOI 1	S-41	12/1/2014	---	26.10	---	Intermediate	No	Static	
AOI 1	S-421	12/1/2014	---	25.53	---	Intermediate	No	Static	
AOI 1	S-43	12/2/2014	---	24.32	---	Intermediate	No	Static	
AOI 1	S-44	12/2/2014	---	25.94	---	Intermediate	No	Static	
AOI 1	S-45	12/2/2014	---	20.85	---	Intermediate	No	Static	Well is dry at 20.85 ft. bloc.
AOI 1	S-46	12/1/2014	---	21.79	---	Intermediate	No	Static	
AOI 1	S-46D	12/1/2014	---	14.95	---	Deep	No	Static	
AOI 1	S-471	12/1/2014	---	21.44	---	Intermediate	No	Static	
AOI 1	S-50	12/1/2014	---	22.78	---	Shallow	No	Static	
AOI 1	S-51	12/1/2014	---	22.46	---	Shallow	No	Static	
AOI 1	S-52	12/1/2014	---	23.14	---	Intermediate	No	Static	
AOI 1	S-74	12/1/2014	---	25.65	---	Shallow	No	Static	
AOI 1	S-75	12/1/2014	---	26.84	---	Shallow	No	Static	
AOI 1	S-76	12/1/2014	26.53	27.34	0.81	Shallow	No	Static	
AOI 1	S-77	12/1/2014	13.19	13.82	0.63	Shallow	No	Static	
AOI 1	S-77P	12/1/2014	---	28.77	---	Shallow	No	Static	
AOI 1	S-78	12/1/2014	---	26.40	---	Intermediate	No	Static	
AOI 1	S-79	12/1/2014	23.61	23.94	0.33	Intermediate	No	Static	

Table 2
Fourth Quarter 2014 Gauging Data
Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	Well Classification	Recovery Well Y or N	Static or Pumping	Comments
AOI 1	S-79P	12/1/2014	---	26.28	---	Shallow	No	Static	
AOI 1	S-80	12/1/2014	---	27.82	---	Shallow	No	Static	
AOI 1	S-80D	12/1/2014	---	29.79	---	Deep	No	Static	
AOI 1	S-81	12/1/2014	---	21.27	---	Shallow	No	Static	
AOI 1	S-82	12/1/2014	23.01	23.01	<0.01	Shallow	No	Static	
AOI 1	S-83	12/3/2014	19.30	19.94	0.64	Shallow	No	Static	
AOI 1	S-84P	12/1/2014	---	19.01	---	Shallow	No	Static	
AOI 1	S-85	12/1/2014	---	24.01	---	Shallow	No	Static	
AOI 1	S-86	12/1/2014	25.70	25.71	0.01	Intermediate	No	Static	
AOI 1	S-87I	12/1/2014	25.05	25.05	<0.01	Intermediate	No	Static	
AOI 1	S-88	12/1/2014	---	25.10	---	Intermediate	No	Static	
AOI 1	S-88A	12/1/2014	---	23.88	---	Shallow	No	Static	Casing broken at grade.
AOI 1	S-89	12/3/2014	26.44	26.45	0.01	Intermediate	No	Static	
AOI 1	S-95	12/1/2014	---	22.74	---	Intermediate	No	Static	
AOI 1	S-98	12/2/2014	---	22.96	---	Intermediate	No	Static	
AOI 1	S-99	12/1/2014	---	25.28	---	Intermediate	No	Static	
AOI 1	S-100	12/1/2014	22.94	24.22	1.28	Intermediate	No	Static	
AOI 1	S-101	12/1/2014	---	47.60	---	Intermediate	No	Static	
AOI 1	S-116	12/1/2014	---	13.71	---	Shallow	No	Static	
AOI 1	S-117	12/1/2014	---	17.46	---	Shallow	No	Static	
AOI 1	S-118	12/1/2014	---	17.74	---	Shallow	No	Static	
AOI 1	S-125	12/1/2014	22.04	22.18	0.14	Shallow	No	Static	
AOI 1	S-126	12/3/2014	11.61	11.80	0.19	Shallow	No	Static	
AOI 1	S-127	12/1/2014	---	16.65	---	Shallow	No	Static	
AOI 1	S-162	12/1/2014	17.49	17.53	0.04	Shallow	No	Static	
AOI 1	S-164	12/1/2014	---	15.66	---	Shallow	No	Static	
AOI 1	S-179	12/1/2014	---	20.65	---	Intermediate	Yes	Static	
AOI 1	S-180	12/1/2014	---	20.23	---	Intermediate	Yes	Static	
AOI 1	S-181	12/1/2014	---	22.51	---	Intermediate	Yes	Static	
AOI 1	S-182	12/1/2014	---	22.02	---	Intermediate	Yes	Static	
AOI 1	S-183	12/1/2014	---	22.69	---	Intermediate	Yes	Static	
AOI 1	S-184	12/1/2014	---	22.12	---	Intermediate	Yes	Static	
AOI 1	S-185	12/1/2014	---	21.51	---	Intermediate	Yes	Static	
AOI 1	S-186	12/1/2014	---	22.79	---	Intermediate	Yes	Static	
AOI 1	S-187	12/1/2014	---	23.68	---	Intermediate	Yes	Static	
AOI 1	S-188	12/1/2014	---	23.65	---	Intermediate	Yes	Static	
AOI 1	S-189	12/3/2014	24.94	25.93	0.99	Intermediate	Yes	Static	
AOI 1	S-190	12/1/2014	---	25.09	---	Intermediate	Yes	Static	
AOI 1	S-191	12/1/2014	---	24.68	---	Intermediate	Yes	Static	
AOI 1	S-192	12/1/2014	---	24.99	---	Intermediate	Yes	Static	
AOI 1	S-193	12/1/2014	---	23.77	---	Intermediate	Yes	Static	
AOI 1	S-194	12/1/2014	---	26.43	---	Shallow	No	Static	
AOI 1	S-196	12/1/2014	---	45.53	---	Shallow	No	Static	
AOI 1	S-198	12/1/2014	24.64	26.41	1.77	Intermediate	No	Static	
AOI 1	S-199	12/1/2014	24.68	25.80	1.12	Intermediate	No	Static	
AOI 1	S-200	12/1/2014	---	24.70	---	Intermediate	No	Static	
AOI 1	S-201	12/1/2014	23.45	24.15	0.70	Intermediate	No	Static	
AOI 1	S-202	12/2/2014	---	28.48	---	Intermediate	No	Static	
AOI 1	S-203	12/1/2014	27.95	28.89	0.94	Intermediate	No	Static	Very thick product.
AOI 1	S-205	12/1/2014	17.89	19.43	1.54	Intermediate	No	Static	
AOI 1	S-206	12/2/2014	---	27.65	---	Intermediate	No	Static	
AOI 1	S-207	12/1/2014	---	13.65	---	Intermediate	No	Static	
AOI 1	S-208	12/1/2014	---	19.68	---	Intermediate	No	Static	
AOI 1	S-209	12/1/2014	---	26.23	---	Intermediate	No	Static	
AOI 1	S-210	12/1/2014	23.89	24.10	0.21	Intermediate	No	Static	
AOI 1	S-211	12/1/2014	---	14.21	---	Intermediate	No	Static	
AOI 1	S-212	12/1/2014	---	17.65	---	Intermediate	No	Static	
AOI 1	S-213	12/1/2014	---	14.42	---	Intermediate	No	Static	
AOI 1	S-214	12/1/2014	---	19.47	---	Intermediate	No	Static	
AOI 1	S-226	12/1/2014	---	22.03	---	Intermediate	No	Static	
AOI 1	S-227	12/2/2014	---	22.91	---	Intermediate	No	Static	
AOI 1	S-228	12/2/2014	---	22.21	---	Intermediate	No	Static	
AOI 1	S-230	12/1/2014	---	19.81	---	Intermediate	No	Static	
AOI 1	S-231	12/1/2014	---	20.34	---	Intermediate	No	Static	
AOI 1	S-232	12/1/2014	---	21.02	---	Intermediate	No	Static	
AOI 1	S-255	12/2/2014	---	22.91	---	Intermediate	No	Static	
AOI 1	S-256	12/2/2014	---	22.24	---	Intermediate	No	Static	
AOI 1	S-257	12/2/2014	---	23.93	---	Intermediate	No	Static	
AOI 1	S-258	12/2/2014	---	24.34	---	Intermediate	No	Static	
AOI 1	S-259	12/2/2014	---	24.71	---	Intermediate	No	Static	
AOI 1	S-260	12/2/2014	---	23.70	---	Intermediate	No	Static	
AOI 1	S-261	12/1/2014	---	23.11	---	Intermediate	No	Static	
AOI 1	S-262	12/1/2014	---	19.04	---	Intermediate	No	Static	
AOI 1	S-263	12/1/2014	---	16.46	---	Intermediate	No	Static	
AOI 1	S-264D	12/1/2014	---	26.33	---	Deep	No	Static	
AOI 1	S-265	12/1/2014	14.65	14.69	0.04	Intermediate	Yes	Static	
AOI 1	S-267	12/1/2014	---	18.98	---	Intermediate	Yes	Static	
AOI 1	S-268	12/1/2014	---	26.92	---	Intermediate	Yes	Static	
AOI 1	S-269	12/1/2014	---	20.54	---	Intermediate	No	Static	
AOI 1	S-270	12/1/2014	---	21.89	---	Intermediate	No	Static	

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Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	Well Classification	Recovery Well Y or N	Static or Pumping	Comments
AOI 1	S-271	12/1/2014	---	24.41	---	Intermediate	No	Static	
AOI 1	S-272	12/2/2014	---	23.61	---	Intermediate	No	Static	
AOI 1	S-273	12/1/2014	---	23.29	---	Intermediate	No	Static	
AOI 1	S-274	12/3/2014	22.80	22.92	0.12	Intermediate	No	Static	
AOI 1	S-275	12/3/2014	---	26.04	---	Intermediate	No	Static	
AOI 1	S-276	12/1/2014	22.20	22.94	0.74	Intermediate	No	Static	
AOI 1	S-277	12/1/2014	21.75	22.55	0.80	Intermediate	No	Static	
AOI 1	S-312	12/1/2014	---	5.74	---	Shallow/Intermediate	No	Static	
AOI 1	S-330	12/1/2014	---	25.44	---	Intermediate	No	Static	
AOI 1	S-331	12/1/2014	---	27.62	---	Intermediate	No	Static	
AOI 1	S-332	12/1/2014	---	25.96	---	Intermediate	No	Static	
AOI 1	S-388D	12/1/2014	---	25.59	---	Deep	No	Static	
AOI 1	S-389D	12/1/2014	---	24.50	---	Deep	No	Static	
AOI 1	S-390D	12/1/2014	---	25.81	---	Deep	No	Static	
AOI 1	S-391D	12/1/2014	---	26.54	---	Deep	No	Static	
AOI 1	S-392D	12/1/2014	---	19.64	---	Deep	No	Static	
AOI 1	S-393D	12/1/2014	---	29.83	---	Deep	No	Static	
AOI 1	S-394	12/1/2014	---	30.11	---	Deep	No	Static	
AOI 1	S-395	12/1/2014	---	27.55	---	Shallow	No	Static	
AOI 1	S-396	12/1/2014	---	25.20	---	Intermediate	No	Static	
AOI 1	S-397	12/1/2014	---	25.89	---	Intermediate	No	Static	
AOI 1	S-398	12/1/2014	---	25.00	---	Intermediate	No	Static	
AOI 1	S-399	12/1/2014	---	19.82	---	Intermediate	No	Static	
AOI 1	S-400	12/1/2014	---	26.61	---	Deep	No	Static	
AOI 1	S-401	12/1/2014	---	26.57	---	Intermediate	No	Static	
AOI 1	TW-3	12/1/2014	---	27.51	---	Shallow	No	Static	
AOI 1	TW-5	12/1/2014	---	27.41	---	Shallow	No	Static	
AOI 1	TW-8	12/1/2014	---	25.75	---	Shallow	No	Static	
AOI 1	TW-9	12/1/2014	---	27.54	---	Shallow	No	Static	
AOI 1	TW-10	12/1/2014	---	26.01	---	Shallow	No	Static	
AOI 1	TW-11	12/1/2014	---	27.99	---	Shallow	No	Static	
AOI 2	C-HEADER	12/2/2014	---	13.18	---	Shallow/Intermediate	No	Static	
AOI 2	PZ-100	12/2/2014	---	15.78	---	Shallow	No	Static	
AOI 2	PZ-101	12/2/2014	NA	NA	NA	Shallow	No	Static	Not accessible - covered by dumpster.
AOI 2	River1	12/2/2014	---	7.90	---	NA	No	Static	
AOI 2	River3	12/2/2014	---	7.22	---	NA	No	Static	
AOI 2	RW-100	12/2/2014	18.67	19.04	0.37	Shallow	Yes	Static	
AOI 2	RW-101	12/2/2014	17.51	18.42	0.91	Shallow	Yes	Static	
AOI 2	RW-102	12/2/2014	15.33	15.38	0.05	Shallow	Yes	Static	
AOI 2	RW-103	12/2/2014	17.50	18.37	0.87	Shallow	Yes	Static	
AOI 2	RW-104	12/2/2014	---	6.63	---	Shallow	Yes	Static	
AOI 2	RW-105	12/2/2014	---	8.96	---	Shallow	Yes	Static	
AOI 2	RW-106	12/2/2014	7.84	7.84	<0.01	Shallow	Yes	Static	
AOI 2	RW-107	12/2/2014	---	9.74	---	Shallow	Yes	Static	
AOI 2	RW-108	12/2/2014	---	7.93	---	Shallow	Yes	Static	
AOI 2	RW-109	12/2/2014	---	7.80	---	Shallow	Yes	Static	
AOI 2	RW-113	12/2/2014	---	9.00	---	Shallow	Yes	Static	
AOI 2	RW-114	12/2/2014	11.72	11.72	<0.01	Shallow	Yes	Static	
AOI 2	RW-115	12/2/2014	---	8.86	---	Shallow	Yes	Static	
AOI 2	RW-116	12/2/2014	---	9.34	---	Shallow	Yes	Static	
AOI 2	RW-117	12/2/2014	8.07	10.11	2.04	Shallow	Yes	Static	
AOI 2	RW-118	12/2/2014	10.25	10.77	0.52	Shallow	Yes	Static	
AOI 2	RW-119	12/2/2014	11.32	11.45	0.13	Shallow	Yes	Static	
AOI 2	RW-120	12/2/2014	12.09	12.43	0.34	Shallow	Yes	Static	
AOI 2	RW-121	12/2/2014	---	13.80	---	Shallow/Intermediate	Yes	Static	
AOI 2	RW-122	12/2/2014	8.76	8.93	0.17	Shallow	Yes	Static	
AOI 2	RW-123	12/2/2014	---	8.44	---	Shallow	Yes	Static	
AOI 2	RW-124	12/2/2014	7.65	7.66	0.01	Shallow	Yes	Static	
AOI 2	RW-125	12/2/2014	---	12.68	---	Shallow	Yes	Static	
AOI 2	RW-126	12/2/2014	7.80	7.80	<0.01	Shallow	Yes	Static	
AOI 2	RW-127	12/2/2014	---	12.49	---	Shallow	Yes	Static	
AOI 2	RW-128	12/2/2014	8.14	8.16	0.02	Shallow	Yes	Static	
AOI 2	RW-129	12/2/2014	9.15	9.15	<0.01	Shallow	Yes	Static	
AOI 2	RW-600	12/2/2014	---	4.79	---	Shallow/Intermediate	No	Static	
AOI 2	RW-601	12/2/2014	---	9.11	---	Shallow/Intermediate	Yes	Static	
AOI 2	S-48	12/2/2014	20.07	20.34	0.27	Shallow/Intermediate	No	Static	
AOI 2	S-53	12/2/2014	18.92	19.18	0.26	Shallow	No	Static	
AOI 2	S-54	12/2/2014	22.17	22.34	0.17	Intermediate	No	Static	
AOI 2	S-61	12/2/2014	17.01	17.23	0.22	Shallow/Intermediate	No	Static	
AOI 2	S-62	12/2/2014	---	19.36	---	Intermediate	No	Static	
AOI 2	S-63	12/2/2014	---	19.69	---	Shallow	No	Static	
AOI 2	S-64	12/3/2014	NA	NA	NA	Shallow/Intermediate	No	Static	Unable to locate under gravel.
AOI 2	S-65	12/2/2014	9.84	9.92	0.08	Shallow/Intermediate	No	Static	
AOI 2	S-70	12/3/2014	NM	NM	NM	Shallow/Intermediate	No	Static	Well is filled with gravel.
AOI 2	S-71	12/2/2014	---	21.11	---	Shallow/Intermediate	No	Static	
AOI 2	S-72	12/2/2014	---	26.92	---	Intermediate	No	Static	
AOI 2	S-72D	12/2/2014	---	30.58	---	Deep	No	Static	
AOI 2	S-91	12/2/2014	19.03	19.03	<0.01	Intermediate	No	Static	
AOI 2	S-92	12/2/2014	12.43	12.46	0.03	Intermediate	No	Static	
AOI 2	S-93	12/2/2014	---	16.31	---	Intermediate	Yes	Static	

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AOI	Well ID	Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	Well Classification	Recovery Well Y or N	Static or Pumping	Comments
AOI 2	S-105	12/2/2014	---	10.58	---	Shallow	No	Static	
AOI 2	S-107	12/4/2014	9.39	10.63	1.24	Shallow/Intermediate	No	Static	
AOI 2	S-108	12/2/2014	5.52	5.53	0.01	Shallow/Intermediate	No	Static	
AOI 2	S-110	12/2/2014	---	15.11	---	Shallow/Intermediate	No	Static	
AOI 2	S-130	12/2/2014	DRY	DRY	DRY	Shallow/Intermediate	No	Static	Well is dry at 19.75 ft. btoc.
AOI 2	S-131	12/2/2014	15.98	17.45	1.47	Shallow	No	Static	
AOI 2	S-132	12/2/2014	---	19.09	---	Shallow/Intermediate	No	Static	
AOI 2	S-133	12/2/2014	---	19.04	---	Shallow/Intermediate	No	Static	
AOI 2	S-134	12/2/2014	---	20.62	---	Shallow/Intermediate	No	Static	
AOI 2	S-135	12/2/2014	21.01	23.86	2.85	Shallow	No	Static	
AOI 2	S-136	12/2/2014	---	18.64	---	Shallow/Intermediate	No	Static	
AOI 2	S-137	12/2/2014	---	18.15	---	Shallow/Intermediate	No	Static	
AOI 2	S-139	12/2/2014	---	19.23	---	Shallow/Intermediate	No	Static	
AOI 2	S-140	12/2/2014	---	19.87	---	Shallow/Intermediate	No	Static	
AOI 2	S-141	12/2/2014	19.83	20.44	0.61	Shallow/Intermediate	No	Static	
AOI 2	S-142	12/2/2014	18.50	18.95	0.45	Shallow	No	Static	
AOI 2	S-143	12/2/2014	NM	NM	NM	Shallow/Intermediate	No	Static	Well obstructed at 9.85 ft. btoc.
AOI 2	S-150	12/2/2014	---	18.06	---	Shallow/Intermediate	No	Static	
AOI 2	S-152	12/2/2014	---	8.10	---	Shallow/Intermediate	No	Static	
AOI 2	S-153	12/2/2014	---	7.34	---	Shallow/Intermediate	No	Static	
AOI 2	S-154	12/2/2014	---	8.01	---	Shallow/Intermediate	No	Static	
AOI 2	S-156	12/2/2014	18.59	18.65	0.06	Shallow	No	Static	
AOI 2	S-157	12/2/2014	17.10	19.05	1.95	Shallow/Intermediate	No	Static	
AOI 2	S-159	12/2/2014	---	16.92	---	Shallow/Intermediate	No	Static	
AOI 2	S-165	12/2/2014	---	17.05	---	Shallow/Intermediate	No	Static	
AOI 2	S-166	12/2/2014	---	16.46	---	Shallow/Intermediate	No	Static	
AOI 2	S-174	12/2/2014	10.65	13.33	2.68	Shallow	No	Static	
AOI 2	S-175	12/2/2014	18.05	19.57	1.52	Shallow	No	Static	
AOI 2	S-177	12/2/2014	NA	NA	NA	Shallow/Intermediate	No	Static	Not accessible - area around well is flooded.
AOI 2	S-178	12/2/2014	NA	NA	NA	Shallow/Intermediate	No	Static	Not accessible - area around well is flooded.
AOI 2	S-246A	12/2/2014	---	11.55	---	Shallow/Intermediate	No	Static	
AOI 2	S-247	12/2/2014	---	12.18	---	Shallow/Intermediate	No	Static	
AOI 2	S-248	12/2/2014	---	11.08	---	Shallow/Intermediate	No	Static	
AOI 2	S-249	12/2/2014	---	11.01	---	Shallow/Intermediate	No	Static	
AOI 2	S-251	12/2/2014	---	17.56	---	Shallow/Intermediate	Yes	Static	
AOI 2	S-252	12/2/2014	---	17.67	---	Shallow/Intermediate	Yes	Static	
AOI 2	S-253	12/2/2014	---	18.99	---	Shallow/Intermediate	Yes	Static	
AOI 2	S-254	12/2/2014	---	19.48	---	Shallow/Intermediate	Yes	Static	
AOI 2	S-292	12/2/2014	---	19.50	---	Shallow/Intermediate	No	Static	Well is dry at 19.5 ft. btoc.
AOI 2	S-294	12/2/2014	---	29.93	---	Intermediate	No	Static	
AOI 2	S-294D	12/2/2014	---	32.94	---	Deep	No	Static	
AOI 2	S-295	12/2/2014	---	23.71	---	Shallow/Intermediate	No	Static	
AOI 2	S-297	12/4/2014	26.45	27.07	0.62	Shallow/Intermediate	No	Static	
AOI 2	S-298	12/2/2014	16.41	16.47	0.06	Shallow/Intermediate	No	Static	
AOI 2	S-299	12/2/2014	---	21.27	---	Shallow/Intermediate	No	Static	
AOI 2	S-300	12/2/2014	---	23.84	---	Shallow/Intermediate	No	Static	
AOI 2	S-301	12/2/2014	---	17.28	---	Shallow/Intermediate	No	Static	
AOI 2	S-302	12/2/2014	21.98	22.38	0.40	Intermediate	No	Static	
AOI 2	S-302D	12/2/2014	---	23.65	---	Deep	No	Static	
AOI 2	S-303	12/2/2014	---	20.10	---	Shallow/Intermediate	No	Static	
AOI 2	S-304	12/2/2014	13.10	13.11	0.01	Shallow/Intermediate	No	Static	
AOI 2	S-305	12/2/2014	---	18.81	---	Intermediate	No	Static	
AOI 2	S-305D	12/2/2014	---	20.19	---	Deep	No	Static	
AOI 2	S-306	12/2/2014	---	20.96	---	Intermediate	No	Static	
AOI 2	S-307	12/2/2014	---	16.60	---	Shallow/Intermediate	No	Static	
AOI 2	S-308	12/2/2014	---	24.39	---	Shallow/Intermediate	No	Static	
AOI 2	S-309	12/2/2014	---	18.21	---	Shallow/Intermediate	No	Static	
AOI 2	S-310	12/2/2014	---	11.09	---	Shallow/Intermediate	No	Static	Casing bent.
AOI 2	S-311	12/2/2014	25.52	25.83	0.31	Intermediate	No	Static	
AOI 2	S-313	12/2/2014	18.90	18.91	0.01	Shallow	No	Static	
AOI 2	S-314	12/2/2014	---	19.20	---	Shallow	Yes	Static	
AOI 2	S-315	12/2/2014	19.33	19.85	0.52	Shallow	No	Static	
AOI 2	S-316	12/2/2014	---	19.14	---	Shallow	Yes	Static	
AOI 2	S-317	12/2/2014	---	18.60	---	Shallow	Yes	Static	
AOI 2	S-318	12/2/2014	---	22.39	---	Shallow/Intermediate	No	Static	
AOI 2	S-328	12/2/2014	19.22	19.23	0.01	Shallow/Intermediate	No	Static	
AOI 2	S-333	12/2/2014	---	13.63	---	Shallow/Intermediate	No	Static	
AOI 2	S-335	12/2/2014	NA	NA	NA	Shallow/Intermediate	No	Static	Inaccessible, 10-foot sinkhole around well with caution tape.
AOI 2	S-336	12/2/2014	---	9.39	---	Shallow/Intermediate	No	Static	
AOI 2	S-337	12/2/2014	---	10.86	---	Shallow/Intermediate	No	Static	
AOI 2	S-338	12/2/2014	10.18	22.04	11.86	Shallow/Intermediate	No	Static	
AOI 2	S-346	12/2/2014	18.32	19.00	0.68	Shallow/Intermediate	No	Static	
AOI 2	S-347	12/2/2014	17.98	18.70	0.72	Shallow/Intermediate	No	Static	
AOI 2	S-348	12/2/2014	13.62	13.99	0.37	Shallow/Intermediate	No	Static	
AOI 2	S-349	12/2/2014	14.95	15.13	0.18	Shallow/Intermediate	No	Static	
AOI 2	S-350	12/2/2014	---	27.06	---	Shallow/Intermediate	No	Static	
AOI 2	S-351	12/2/2014	---	30.93	---	Shallow/Intermediate	No	Static	
AOI 2	S-354	12/2/2014	---	25.00	---	Shallow/Intermediate	No	Static	
AOI 2	S-355	12/4/2014	27.34	27.38	0.04	Shallow/Intermediate	No	Static	
AOI 2	S-357	12/4/2014	23.11	23.34	0.23	Shallow/Intermediate	No	Static	

Table 2
Fourth Quarter 2014 Gauging Data
Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	Well Classification	Recovery Well Y or N	Static or Pumping	Comments
AOI 2	S-359	12/2/2014	17.80	17.80	<0.01	Shallow/Intermediate	No	Static	
AOI 2	S-360	12/2/2014	22.88	22.91	0.03	Shallow/Intermediate	No	Static	
AOI 2	S-361	12/2/2014	---	24.22	---	Shallow/Intermediate	No	Static	
AOI 2	S-362	12/2/2014	NM	NM	NM	Shallow/Intermediate	No	Static	Well is filled with dirt.
AOI 2	S-363	12/2/2014	25.40	25.41	0.01	Shallow/Intermediate	No	Static	
AOI 2	S-406	12/3/2014	---	10.43	---	Shallow/Intermediate	No	Static	
AOI 2	SD-1	12/2/2014	---	7.51	---	Shallow	No	Static	
AOI 3	RW-2	12/3/2014	11.49	11.91	0.42	Intermediate	Yes	Static	
AOI 4	RW-700	12/5/2014	17.76	18.62	0.86	Intermediate	Yes	Static	
AOI 4	RW-701	12/5/2014	17.88	18.85	0.97	Intermediate	Yes	Static	
AOI 4	RW-702	12/5/2014	---	20.79	---	Intermediate	Yes	Static	
AOI 4	RW-703	12/5/2014	---	20.61	---	Intermediate	Yes	Static	
AOI 4	RW-704	12/5/2014	---	19.77	---	Intermediate	Yes	Static	
AOI 4	RW-705	12/5/2014	---	19.85	---	Intermediate	Yes	Pumping	DTW at top of pump.
AOI 4	RW-706	12/5/2014	---	16.10	---	Intermediate	Yes	Pumping	DTW at top of pump.
AOI 4	RW-707	12/5/2014	---	15.89	---	Intermediate	Yes	Static	
AOI 4	RW-708	12/5/2014	---	14.80	---	Intermediate	Yes	Pumping	DTW at top of pump.
AOI 4	RW-709	12/5/2014	---	15.10	---	Intermediate	Yes	Pumping	DTW at top of pump.
AOI 4	RW-710	12/5/2014	---	15.73	---	Intermediate	Yes	Static	
AOI 4	RW-711	12/5/2014	---	13.55	---	Intermediate	Yes	Pumping	DTW at top of pump.
AOI 4	RW-712	12/5/2014	---	13.60	---	Intermediate	Yes	Pumping	DTW at top of pump.
AOI 4	RW-713	12/5/2014	---	14.00	---	Intermediate	Yes	Pumping	DTW at top of pump.
AOI 4	RW-714	12/5/2014	---	15.20	---	Intermediate	Yes	Pumping	DTW at top of pump.
AOI 4	RW-715	12/5/2014	---	14.89	---	Intermediate	Yes	Static	
AOI 4	RW-716	12/5/2014	---	15.20	---	Intermediate	Yes	Pumping	DTW at top of pump.
AOI 4	RW-717	12/5/2014	---	15.06	---	Intermediate	Yes	Static	
AOI 4	S-29	12/4/2014	20.70	23.22	2.52	Intermediate	No	Static	
AOI 4	S-30	12/4/2014	21.65	28.76	7.11	Intermediate	Yes	Static	
AOI 4	S-31	12/4/2014	18.72	19.55	0.83	Shallow	No	Static	
AOI 4	S-32	12/4/2014	23.01	23.02	0.01	Shallow	No	Static	
AOI 4	S-34	12/4/2014	---	12.41	---	Shallow	No	Static	
AOI 4	S-35	12/4/2014	---	20.76	---	Shallow	No	Static	
AOI 4	S-36	12/4/2014	23.92	23.92	<0.01	Shallow	No	Static	
AOI 4	S-370	12/9/2014	---	11.64	---	Shallow/Intermediate	No	Static	
AOI 5	RWBH-1	12/3/2014	2.54	2.54	<0.01	Shallow	Yes	Static	
AOI 5	RWBH-2	12/3/2014	1.80	1.81	0.01	Shallow	Yes	Static	
AOI 5	WP9-8	12/9/2014	4.03	5.93	1.90	Shallow	No	Static	
AOI 6	B-39	12/4/2014	1.85	1.86	0.01	Shallow	No	Static	
AOI 6	B-43	12/4/2014	4.45	4.45	<0.01	Shallow	No	Static	
AOI 6	B-45	12/4/2014	---	0.51	---	Shallow	No	Static	
AOI 6	B-46	12/4/2014	---	0.81	---	Shallow	No	Static	
AOI 6	B-47	12/4/2014	3.43	3.43	<0.01	Shallow	No	Static	
AOI 6	B-48	12/4/2014	---	0.00	---	Shallow	No	Static	Water level at top of casing.
AOI 6	B-48D	12/4/2014	---	11.91	---	Deep	No	Static	
AOI 6	B-92	12/4/2014	---	5.09	---	Shallow	No	Static	
AOI 6	B-94	12/4/2014	---	7.64	---	Shallow	No	Static	
AOI 6	B-95	12/4/2014	---	4.48	---	Shallow	No	Static	
AOI 6	B-115	12/4/2014	---	2.80	---	Shallow	No	Static	
AOI 6	B-116	12/4/2014	---	5.94	---	Shallow	No	Static	
AOI 6	B-117	12/4/2014	---	8.28	---	Shallow	No	Static	
AOI 6	B-123	12/4/2014	---	4.51	---	Shallow	No	Static	
AOI 6	B-124	12/4/2014	5.14	5.67	0.53	Shallow	Yes	Static	
AOI 6	B-125	12/4/2014	---	5.04	---	Shallow	No	Static	
AOI 6	B-126	12/4/2014	---	5.34	---	Shallow	No	Static	
AOI 6	B-129	12/4/2014	4.79	10.19	5.40	Shallow	No	Static	
AOI 6	B-130	12/4/2014	5.44	5.63	0.19	Shallow	No	Static	
AOI 6	B-131	12/4/2014	---	5.25	---	Shallow	No	Static	
AOI 6	B-132	12/4/2014	4.96	5.00	0.04	Shallow	No	Static	
AOI 6	B-132D	12/4/2014	---	15.49	---	Deep	No	Static	
AOI 6	B-133	12/9/2014	---	4.65	---	Shallow	Yes	Static	
AOI 6	B-133D	12/4/2014	---	11.09	---	Deep	No	Static	
AOI 6	B-134	12/4/2014	4.85	4.85	<0.01	Shallow	Yes	Static	
AOI 6	B-134D	12/4/2014	---	11.77	---	Deep	No	Static	
AOI 6	B-135	12/4/2014	4.95	4.96	0.01	Shallow	No	Static	
AOI 6	B-136	12/9/2014	4.06	4.07	0.01	Shallow	Yes	Static	
AOI 6	B-137	12/4/2014	4.20	4.84	0.64	Shallow	Yes	Static	
AOI 6	B-138	12/4/2014	4.28	4.28	<0.01	Shallow	Yes	Static	
AOI 6	B-139	12/4/2014	5.38	5.39	0.01	Shallow	Yes	Static	
AOI 6	B-141	12/4/2014	---	3.23	---	Shallow	No	Static	
AOI 6	B-142	12/4/2014	7.19	7.24	0.05	Shallow	Yes	Static	
AOI 6	B-143	12/4/2014	4.88	5.50	0.62	Shallow	Yes	Static	
AOI 6	B-144	12/4/2014	4.85	4.86	0.01	Shallow	No	Static	
AOI 6	B-145	12/4/2014	---	4.35	---	Shallow	No	Static	
AOI 6	B-147	12/4/2014	5.98	6.01	0.03	Shallow	Yes	Static	
AOI 6	B-148	12/4/2014	5.44	6.09	0.65	Shallow	No	Static	
AOI 6	B-149	12/4/2014	2.80	3.52	0.72	Shallow	No	Static	
AOI 6	B-150	12/4/2014	2.72	5.75	3.03	Shallow	No	Static	
AOI 6	B-151	12/4/2014	---	3.45	---	Shallow	No	Static	
AOI 6	B-152	12/4/2014	---	1.23	---	Shallow	No	Static	
AOI 6	B-153	12/4/2014	---	1.74	---	Shallow	No	Static	

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Fourth Quarter 2014 Gauging Data
Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	Well Classification	Recovery Well Y or N	Static or Pumping	Comments
AOI 6	B-154	12/4/2014	---	3.09	---	Shallow	No	Static	
AOI 6	B-155	12/4/2014	---	4.66	---	Shallow	No	Static	
AOI 6	B-156	12/4/2014	---	5.40	---	Shallow	No	Static	
AOI 6	B-158	12/4/2014	---	3.10	---	Shallow	No	Static	
AOI 6	B-160	12/9/2014	---	4.06	---	Shallow	No	Static	
AOI 6	B-161	12/4/2014	3.94	4.13	0.19	Shallow	No	Static	
AOI 6	B-162	12/4/2014	NA	NA	NA	Shallow	No	Static	Not accessible - area around well is flooded.
AOI 6	B-163	12/4/2014	---	1.26	---	Shallow	No	Static	
AOI 6	B-164	12/4/2014	---	5.43	---	Shallow	No	Static	
AOI 6	B-165	12/4/2014	---	2.66	---	Shallow	No	Static	
AOI 6	B-166	12/4/2014	---	1.98	---	Shallow	No	Static	
AOI 6	B-167	12/4/2014	---	5.65	---	Shallow	No	Static	
AOI 6	B-168	12/4/2014	---	2.48	---	Shallow	No	Static	
AOI 6	B-169	12/4/2014	---	1.72	---	Shallow	No	Static	
AOI 6	B-170	12/4/2014	---	1.94	---	Shallow	No	Static	
AOI 6	PZ-132A	12/9/2014	---	5.27	---	Shallow	No	Static	
AOI 6	PZ-135A	12/4/2014	NM	NM	NM	Shallow	No	Static	Well is destroyed.
AOI 6	PZ-135B	12/4/2014	NM	NM	NM	Shallow	No	Static	Well is destroyed.
AOI 6	RW-9	12/4/2014	4.90	5.64	0.74	Shallow	Yes	Static	
AOI 6	SUMP-1	12/4/2014	5.49	5.50	0.01	Shallow	Yes	Static	
AOI 6	U-1	12/4/2014	---	6.61	---	Shallow	No	Static	
AOI 6	U-2	12/4/2014	---	6.06	---	Shallow	No	Static	
AOI 6	U-3	12/4/2014	6.28	7.60	1.32	Shallow	No	Static	
AOI 6	U-4	12/4/2014	---	3.47	---	Shallow	No	Static	
AOI 6	U-5	12/4/2014	---	6.58	---	Shallow	No	Static	
AOI 6	URS-1	12/4/2014	---	5.82	---	Shallow	No	Static	
AOI 6	URS-2	12/4/2014	---	4.28	---	Shallow	No	Static	
AOI 6	URS-3	12/4/2014	---	4.38	---	Shallow	No	Static	
AOI 6	URS-4	12/4/2014	---	7.50	---	Shallow	No	Static	
AOI 6	URS-5	12/4/2014	---	5.23	---	Shallow	No	Static	
AOI 6	WP9-3	12/4/2014	---	1.45	---	Shallow	No	Static	
AOI 6	WP9-4	12/4/2014	---	4.09	---	Shallow	No	Static	
AOI 6	WPM-2	12/4/2014	---	3.74	---	Shallow	No	Static	
AOI 6	WPM-3	12/4/2014	---	3.41	---	Shallow	No	Static	
AOI 6	WPM-11	12/4/2014	---	1.09	---	Shallow	No	Static	
AOI 7	C-49	12/9/2014	---	5.41	---	Shallow	No	Static	
AOI 7	C-50	12/9/2014	---	6.65	---	Shallow	No	Static	
AOI 7	C-50D	12/9/2014	---	12.17	---	Deep	No	Static	
AOI 7	C-51	12/9/2014	---	4.47	---	Shallow	No	Static	
AOI 7	C-52	12/9/2014	---	6.30	---	Shallow	No	Static	
AOI 7	C-53A	12/9/2014	---	3.93	---	Shallow	No	Static	
AOI 7	C-54	12/9/2014	---	0.47	---	Shallow	No	Static	
AOI 7	C-55	12/9/2014	---	4.98	---	Shallow	No	Static	
AOI 7	C-56	12/9/2014	---	2.25	---	Shallow	No	Static	
AOI 7	C-57	12/9/2014	---	2.66	---	Shallow	No	Static	
AOI 7	C-58	12/9/2014	---	1.57	---	Shallow	No	Static	
AOI 7	C-60	12/9/2014	---	3.54	---	Shallow	No	Static	
AOI 7	C-61	12/9/2014	---	3.46	---	Shallow	No	Static	
AOI 7	C-62	12/9/2014	---	4.84	---	Shallow	No	Static	
AOI 7	C-63	12/9/2014	---	6.22	---	Shallow	No	Static	
AOI 7	C-64	12/9/2014	8.79	9.27	0.48	Shallow	No	Static	
AOI 7	C-65	12/9/2014	4.23	4.71	0.48	Shallow	No	Static	
AOI 7	C-65D	12/9/2014	---	2.11	---	Deep	No	Static	
AOI 7	C-95	12/9/2014	---	6.25	---	Shallow	No	Static	
AOI 7	C-96	12/9/2014	---	5.83	---	Shallow	No	Static	
AOI 7	C-97	12/9/2014	16.22	16.59	0.37	Shallow	No	Static	
AOI 7	C-98	12/9/2014	---	6.04	---	Shallow	No	Static	
AOI 7	C-104	12/9/2014	---	6.25	---	Shallow	No	Static	
AOI 7	C-105	12/9/2014	---	3.29	---	Shallow	No	Static	
AOI 7	C-106	12/9/2014	7.86	10.19	2.33	Shallow	No	Static	
AOI 7	C-108	12/9/2014	---	4.97	---	Shallow	No	Static	
AOI 7	C-109	12/9/2014	---	4.22	---	Shallow	No	Static	
AOI 7	C-110	12/9/2014	---	5.29	---	Shallow	No	Static	
AOI 7	C-111	12/9/2014	---	5.19	---	Shallow	No	Static	
AOI 7	C-112	12/9/2014	---	3.59	---	Shallow	No	Static	
AOI 7	C-113	12/9/2014	---	4.54	---	Shallow	No	Static	
AOI 7	C-114	12/9/2014	---	3.75	---	Shallow	No	Static	
AOI 7	C-127	12/9/2014	---	8.99	---	Shallow	No	Static	
AOI 7	C-129	12/9/2014	---	4.68	---	Shallow/Intermediate	No	Static	
AOI 7	C-129D	12/9/2014	---	10.41	---	Deep	No	Static	
AOI 7	C-130	12/9/2014	---	5.25	---	Shallow	No	Static	
AOI 7	C-131	12/9/2014	---	3.63	---	Shallow	No	Static	
AOI 7	C-132	12/9/2014	---	3.84	---	Shallow	No	Static	
AOI 7	C-133	12/9/2014	---	1.51	---	Shallow	No	Static	
AOI 7	C-134D	12/4/2014	---	11.74	---	Deep	No	Static	
AOI 7	C-136	12/9/2014	---	4.56	---	Shallow	No	Static	
AOI 7	C-137	12/9/2014	---	1.87	---	Shallow	No	Static	
AOI 7	C-138	12/9/2014	---	5.05	---	Shallow	No	Static	
AOI 7	C-139	12/9/2014	---	2.90	---	Shallow	No	Static	
AOI 7	C-140	12/9/2014	---	1.52	---	Shallow	No	Static	

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AOI	Well ID	Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	Well Classification	Recovery Well Y or N	Static or Pumping	Comments
AOI 7	C-142	12/9/2014	---	8.02	---	Shallow/Intermediate	No	Static	
AOI 7	C-143	12/9/2014	---	10.11	---	Shallow/Intermediate	No	Static	
AOI 7	C-144D	12/9/2014	NA	NA	NA	Deep	No	Static	Not accesible - dumpster parked over well.
AOI 7	C-145	12/9/2014	---	5.85	---	Shallow	No	Static	
AOI 7	C-146	12/9/2014	10.85	10.86	0.01	Shallow	No	Static	
AOI 7	C-147	12/9/2014	10.25	10.61	0.36	Shallow	No	Static	
AOI 7	C-148	12/9/2014	13.40	15.66	2.26	Shallow	No	Static	
AOI 7	C-150	12/9/2014	13.59	13.93	0.34	Shallow	No	Static	
AOI 7	C-151	12/9/2014	12.35	12.35	<0.01	Shallow	No	Static	
AOI 7	C-152	12/9/2014	NA	NA	NA	Shallow	No	Static	Not accessible - area around well is flooded.
AOI 7	C-153	12/9/2014	14.08	14.34	0.26	Shallow	No	Static	
AOI 7	C-154	12/9/2014	12.06	12.07	0.01	Shallow	No	Static	
AOI 7	C-155	12/9/2014	---	5.88	---	Shallow	No	Static	
AOI 7	C-156	12/9/2014	---	4.30	---	Shallow	No	Static	
AOI 7	C-157	12/9/2014	NA	NA	NA	Shallow	No	Static	Not accessible - covered by gravel.
AOI 7	C-158	12/9/2014	NM	NM	NM	Shallow	No	Static	Casing damaged at 2.95 ft bloc.
AOI 7	C-159	12/9/2014	---	4.23	---	Shallow	No	Static	
AOI 7	C-160	12/9/2014	DRY	DRY	DRY	Shallow	No	Static	Well is dry at 9.90 ft bloc.
AOI 7	C-161	12/9/2014	10.89	10.89	<0.01	Shallow	No	Static	
AOI 7	C-162	12/9/2014	---	10.56	---	Shallow	No	Static	
AOI 7	C-163	12/9/2014	---	5.01	---	Shallow	No	Static	
AOI 7	C-164	12/9/2014	---	4.85	---	Shallow	No	Static	
AOI 7	C-165	12/9/2014	---	6.35	---	Shallow	No	Static	
AOI 7	C-166	12/9/2014	DRY	DRY	DRY	Shallow	No	Static	Well is dry at 7.10 ft bloc.
AOI 7	C-167	12/9/2014	DRY	DRY	DRY	Shallow	No	Static	Well is dry at 12.20 ft bloc.
AOI 7	C-168	12/9/2014	2.95	3.12	0.17	Shallow	No	Static	
AOI 7	C-169	12/9/2014	10.03	10.20	0.17	Shallow	No	Static	
AOI 7	RW-801	12/9/2014	---	19.90	---	Shallow	Yes	Pumping	
AOI 7	RW-802	12/9/2014	---	21.00	---	Shallow	Yes	Pumping	
AOI 7	RW-803	12/9/2014	---	22.70	---	Shallow	Yes	Pumping	
AOI 7	RW-804	12/9/2014	---	20.80	---	Shallow	Yes	Pumping	Formerly C-170
AOI 7	RW-805	12/9/2014	---	17.65	---	Shallow	Yes	Pumping	
AOI 7	RW-806	12/9/2014	---	20.25	---	Shallow	Yes	Pumping	
AOI 7	RW-807	12/9/2014	---	18.80	---	Shallow	Yes	Pumping	
AOI 7	RW-808	12/9/2014	---	18.80	---	Shallow	Yes	Pumping	
AOI 7	RW-809	12/9/2014	---	19.80	---	Shallow	Yes	Pumping	
AOI 7	RW-810	12/9/2014	---	18.75	---	Shallow	Yes	Pumping	
AOI 7	WP14-2	12/9/2014	---	8.05	---	Shallow	No	Static	
AOI 8	N-137	12/3/2014	18.24	18.61	0.37	Intermediate	No	Static	
AOI 8	N-138	12/3/2014	27.89	28.46	0.57	Intermediate	No	Static	
AOI 8	N-139	12/3/2014	27.66	28.25	0.59	Intermediate	No	Static	
AOI 8	N-140	12/3/2014	---	17.70	---	Shallow	No	Static	
AOI 8	N-141	12/3/2014	---	14.44	---	Shallow	No	Static	
AOI 8	N-142	12/3/2014	---	27.49	---	Shallow	No	Static	
AOI 8	N-143	12/3/2014	22.95	22.99	0.04	Shallow	No	Static	
AOI 8	N-144	12/3/2014	---	27.04	---	Shallow	No	Static	
AOI 8	N-145	12/3/2014	18.59	18.75	0.16	Shallow	No	Static	
AOI 8	N-146	12/4/2014	18.54	19.37	0.83	Shallow	No	Static	
AOI 8	RW-200	12/3/2014	---	6.34	---	Intermediate	Yes	Static	
AOI 8	RW-201	12/4/2014	23.43	23.86	0.43	Intermediate	Yes	Static	
AOI 8	RW-202	12/3/2014	---	20.79	---	Intermediate	Yes	Static	
AOI 8	RW-203	12/3/2014	22.84	23.03	0.19	Intermediate	Yes	Static	
AOI 8	RW-204	12/4/2014	19.67	21.35	1.68	Intermediate	Yes	Static	
AOI 8	RW-205	12/3/2014	19.39	22.10	2.71	Intermediate	Yes	Static	
AOI 8	RW-206	12/3/2014	21.46	23.38	1.92	Intermediate	Yes	Static	
AOI 8	RW-300	12/3/2014	15.00	15.22	0.22	Intermediate	Yes	Static	
AOI 8	RW-301	12/3/2014	---	12.61	---	Intermediate	Yes	Static	
AOI 8	RW-302	12/3/2014	---	13.90	---	Intermediate	Yes	Static	
AOI 8	RW-303	12/3/2014	---	14.65	---	Intermediate	Yes	Static	
AOI 8	RW-304	12/3/2014	---	15.38	---	Intermediate	Yes	Static	
AOI 8	RW-305	12/3/2014	---	15.39	---	Intermediate	Yes	Static	
AOI 8	RW-306	12/3/2014	12.40	12.41	0.01	Intermediate	Yes	Static	
AOI 8	RW-307	12/3/2014	---	14.99	---	Intermediate	Yes	Static	
AOI 8	RW-308	12/3/2014	---	16.98	---	Intermediate	Yes	Static	
AOI 8	RW-309	12/3/2014	---	15.92	---	Intermediate	Yes	Static	
AOI 8	RW-500	12/3/2014	---	2.85	---	Intermediate	Yes	Static	
AOI 8	RW-501	12/3/2014	---	6.89	---	Intermediate	Yes	Static	
AOI 8	RW-502	12/3/2014	9.09	9.30	0.21	Intermediate	Yes	Static	

NOTES:

All measurements are in feet.
LNAPL = Light Non-Aqueous Phase Liquid
--- = LNAPL not present
NM = Field reading not measured and/or corrected groundwater elevation not calculated due to lack of surveyed reference elevation
NA = Not Accessible, Not Applicable, or Not Available
DRY = Well was dry at time of gauging

FIGURES

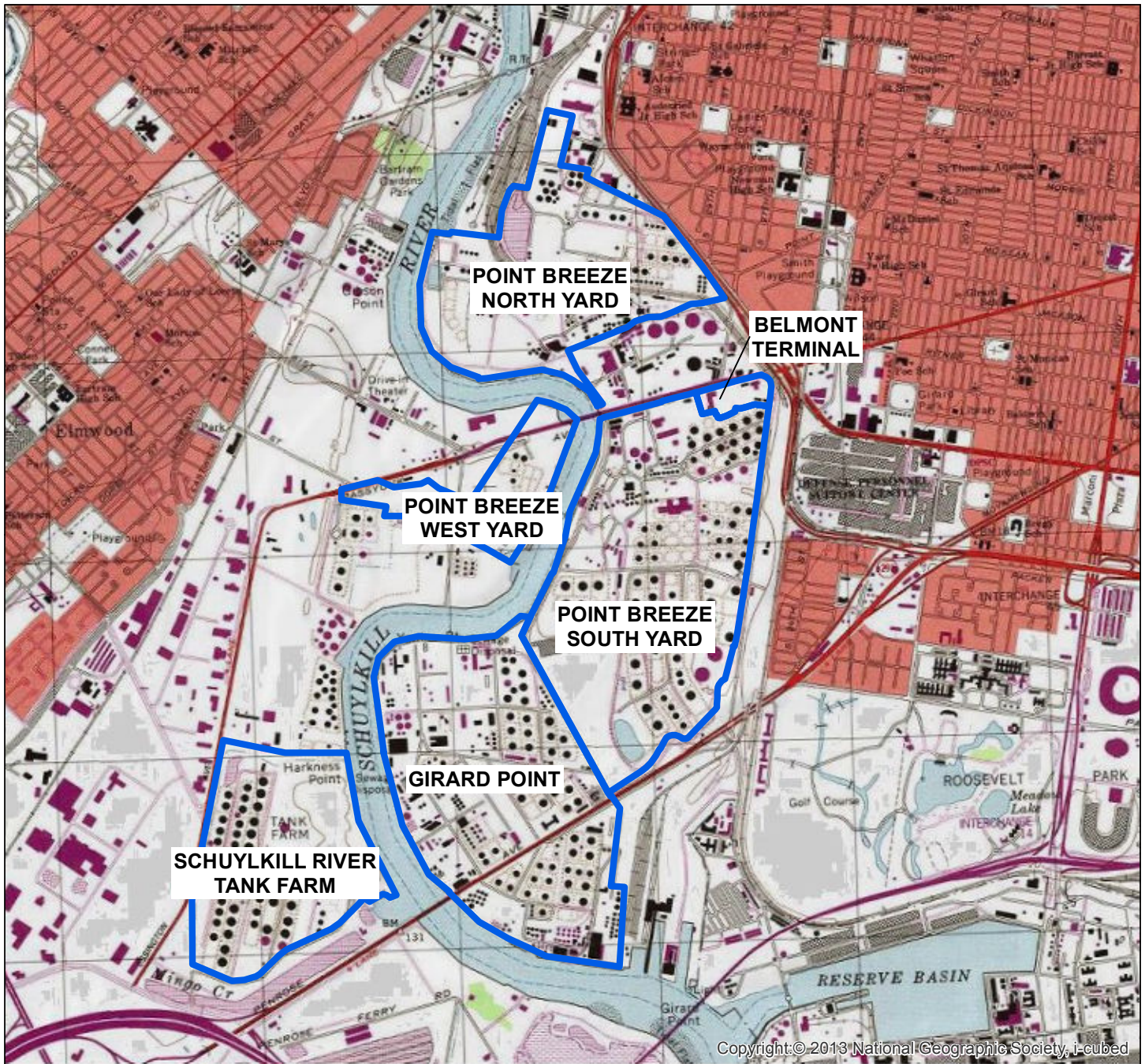


IMAGE SOURCE: DVRPC/PASDA 2010

0 750 1,500 3,000 4,500
Feet



REFERENCE: USGS 7.5 MINUTE QUADRANGLE; PHILADELPHIA, PA.-NJ, QUADRANGLE, 1995



Stantec Consulting Services Inc.

1060 Andrew Drive, Suite 140
West Chester, Pennsylvania
19380
Tel. 610-840-2500
Fax. 610-840-2501
www.stantec.com

Prepared For:



EVERGREEN RESOURCES
MANAGEMENT OPERATIONS LLC
PHILADELPHIA REFINERY
3144 PASSYUNK AVENUE
PHILADELPHIA, PA. 19145

Figure Title:


SITE LOCATION MAP

Figure No.:

1

DRAWN BY: TFB
CHECKED BY: JLM
APPROVED BY: JLM
DATE: 7/25/2014





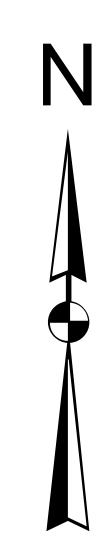
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West Chester, Pennsylvania
19380
Tel: 610-540-2500
Fax: 610-540-2501
www.stantec.com

● SHALLOW / INTERMEDIATE / DEEP MONITORING WELL
● SHALLOW / INTERMEDIATE MONITORING WELL
▲ UNABLE TO LOCATE WELL
— SEWER
— POLLOCK STREET HORIZONTAL WELL
■ BLUE HATCHED AREAS ARE REMEDIATION SYSTEMS DESIGNATED AS INACTIVE
■ WHITE HATCHED AREAS ARE REMEDIATION SYSTEMS DESIGNATED AS CURRENTLY ACTIVE

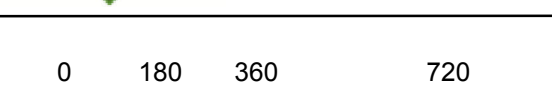
● OTHER MONITORING WELL
● DEEP MONITORING WELL
● INTERMEDIATE MONITORING WELL
● SHALLOW MONITORING WELL
▲ STAFF GAUGE
■ OR ■ DAMAGED WELL

● PIEZOMETER
■ INTERMEDIATE RECOVERY WELL
■ SHALLOW RECOVERY WELL
■ SHALLOW / INTERMEDIATE RECOVERY WELL
● SHALLOW / INTERMEDIATE O₂ MONITORING WELL
■ AREA OF INTEREST (AOI)

Legend



N



0 180 360 720
Feet

FIGURE 2 SITE PLAN

EVERGREEN RESOURCES MANAGEMENT
OPERATIONS LLC
PHILADELPHIA REFINERY
3144 PASSYUNK AVENUE
PHILADELPHIA, PA. 19145

SCALE: AS SHOWN
DATE: 7/24/2014
DWN: TFS
APR: JLM

ATTACHMENT 1
Remediation System Recovery Data

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
Groundwater and LNAPL Recovery Systems Operational Data
AOI 1: Belmont Terminal
Third and Fourth Quarters 2014

Date	Total Flow (gallons)	Period Total Flow (gallons)	Average Flow Rate (gpm)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
8-Jul-14	81,424,215	0	0.00	0	246,853
18-Jul-14	81,424,215	0	0.00	0	246,853
23-Jul-14	81,424,215	0	0.00	0	246,853
29-Jul-14	81,424,215	0	0.00	0	246,853
6-Aug-14	81,424,215	0	0.00	0	246,853
13-Aug-14	81,424,215	0	0.00	0	246,853
22-Aug-14	81,424,215	0	0.00	0	246,853
28-Aug-14	81,424,215	0	0.00	0	246,853
5-Sep-14	81,424,215	0	0.00	0	246,853
11-Sep-14	81,424,215	0	0.00	0	246,853
18-Sep-14	81,424,215	0	0.00	0	246,853
24-Sep-14	81,424,215	0	0.00	0	246,853
30-Sep-14	81,629,472	205,257	23.76	0	246,853
10-Oct-14	81,629,472	0	0.00	0	246,853
17-Oct-14	81,629,472	0	0.00	0	246,853
22-Oct-14	81,629,472	0	0.00	0	246,853
29-Oct-14	81,629,472	0	0.00	0	246,853
7-Nov-14	81,629,472	0	0.00	0	246,853
13-Nov-14	81,629,472	0	0.00	0	246,853
21-Nov-14	81,629,472	0	0.00	0	246,853
26-Nov-14	81,629,472	0	0.00	0	246,853
1-Dec-14	81,629,472	0	0.00	0	246,853
10-Dec-14	81,629,472	0	0.00	0	246,853
16-Dec-14	81,629,472	0	0.00	0	246,853
26-Dec-14	81,629,472	0	0.00	0	246,853
29-Dec-14	81,629,472	0	0.00	0	246,853

NOTES:

LNAPL: Light Non-Aqueous Phase Liquid

gpm: gallons per minute

The Belmont Terminal system consists of the Loading Rack system (RW-21, RW-22, RW-23, RW-24, and RW-25) and the Frontage Road system (RW-15 and RW-26 through RW-32). The Belmont Terminal system has two totalizers: one for the Loading Rack system and one for Frontage Road system.

On August 30, 2012, the Frontage Road system was turned off and remained off for the reporting period. The system will remain offline unless there is a significant increase of LNAPL in the recovery wells. The recovery wells were routinely gauged and no product was detected during the reporting period.

On June 5, 2013, the Loading Rack system was turned off in order to maximize recovery in the 26th Street North area. The product pumps in RW-23, RW-24, and RW-25 were checked weekly and manually operated as recoverable product thicknesses accumulated in each well. The Loading Rack system was restarted on September 25, 2014 in order to obtain a flow rate for the system (to aid in 26th Street North system modifications). The system was shut off on September 30, 2014.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
AOI 1: Shunk Street Sewer Ventilation System and Biofilter Operational Data
Organic Vapor Concentrations
Third and Fourth Quarters 2014

Date	Flow Rate (CFM)	Sewer Air PID (ppm)	Total Flow PID (ppm)	Treatment Cell Effluent PID (ppm)			Treatment Cell Media Temperature (°F)		
				Cell #1	Cell #2	Cell #3	Cell #1	Cell #2	Cell #3
8-Jul-14	4,950	6	6	0	0	0	75	74	75
18-Jul-14	4,950	3	3	0	0	0	74	74	74
23-Jul-14	4,950	1	1	0	0	0	74	75	75
29-Jul-14	4,950	2	2	0	0	0	76	76	76
6-Aug-14	4,950	2	2	0	0	0	78	78	76
13-Aug-14	4,950	0	0	0	0	0	78	78	76
22-Aug-14	4,950	3	3	0	0	0	76	76	76
28-Aug-14	4,950	3	3	0	0	0	76	76	74
5-Sep-14	4,950	0	0	0	0	0	78	78	76
11-Sep-14	4,950	1	1	0	0	0	76	76	74
18-Sep-14	4,950	1	1	0	0	0	78	78	76
24-Sep-14	4,950	1	1	0	0	0	76	76	75
30-Sep-14	4,950	1	1	0	0	0	78	78	78
10-Oct-14	4,950	1	1	0	0	0	72	72	72
17-Oct-14	4,950	1	1	0	0	0	75	75	75
22-Oct-14	4,950	0	0	0	0	0	70	70	70
29-Oct-14	4,950	2	2	0	0	0	70	70	70
7-Nov-14	4,950	1	1	0	0	0	68	68	68
13-Nov-14	4,950	0	0	0	0	0	66	66	66
21-Nov-14	4,950	1	1	0	0	0	60	60	60
26-Nov-14	4,950	0	0	0	0	0	60	60	60
1-Dec-14	4,950	1	1	0	0	0	66	66	66
10-Dec-14	4,950	1	1	0	0	0	66	66	66
16-Dec-14	4,950	1	1	0	0	0	60	60	60
26-Dec-14	4,950	1	1	0	0	0	64	64	64
29-Dec-14	4,950	1	1	0	0	0	58	58	58

NOTES:

CFM: cubic feet per minute

PID: Photoionization detector

ppm: parts per million

°F: Degrees fahrenheit

The sewer air reading is collected from the Shunk Street sewer air stream only.

The air stripper was taken offline on June 17, 2004; therefore, the total flow is equal to the sewer air reading.

The system was operational for the second half of 2014.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
AOI 1: Shunk Street Sewer Biofilter System
pH Data

Third and Fourth Quarters 2014

Date	Leachate pH	Biofilter Treatment Cell - Soil pH		
		Cell 1	Cell 2	Cell 3
23-Jul-14	6.21	---	---	---
28-Aug-14	6.79	5.77	5.31	5.90
30-Sep-14	NA	---	---	---
29-Oct-14	NA	---	---	---
26-Nov-14	6.12	5.63	5.45	5.15

NOTES:

Leachate pH and media pH recordings are collected on a quarterly basis.

NA = Not applicable or no leachate available for which to record pH.

The system was operational for second half of 2014.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
Total Fluids Recovery System Operational Data
AOI 1: 26th Street Sewer Area
Third and Fourth Quarters 2014

Date	Total Flow (gallons)	Period Total Flow (gallons)	Calculated System Flow Rate (gpm)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
8-Jul-14	47,021,940	0	0.00	NA	8,849.60
16-Jul-14	47,137,659	115,719	10.05	NA	8,849.60
22-Jul-14	47,438,109	300,450	34.77	NA	8,849.60
30-Jul-14	47,855,209	417,100	36.21	NA	8,849.60
7-Aug-14	48,094,909	239,700	20.81	NA	8,849.60
15-Aug-14	48,248,539	153,630	13.34	NA	8,849.60
20-Aug-14	48,487,439	238,900	33.18	NA	8,849.60
28-Aug-14	48,799,849	312,410	27.12	NA	8,849.60
5-Sep-14	49,103,679	303,830	26.37	NA	8,849.60
10-Sep-14	49,282,779	179,100	24.88	NA	8,849.60
16-Sep-14	49,561,349	278,570	32.24	NA	8,849.60
24-Sep-14	49,891,629	330,280	28.67	NA	8,849.60
1-Oct-14	49,953,979	62,350	6.19	NA	8,849.60
8-Oct-14	50,016,329	62,350	6.19	NA	8,849.60
17-Oct-14	50,019,659	3,330	0.26	NA	8,849.60
22-Oct-14	50,019,659	0	0.00	NA	8,849.60
27-Oct-14	50,019,659	0	0.00	NA	8,849.60
7-Nov-14	50,019,659	0	0.00	NA	8,849.60
11-Nov-14	50,019,659	0	0.00	NA	8,849.60
18-Nov-14	50,142,529	122,870	12.19	NA	8,849.60
25-Nov-14	50,142,979	450	0.04	NA	8,849.60
4-Dec-14	50,142,979	0	0.00	NA	8,849.60
8-Dec-14	50,142,979	0	0.00	NA	8,849.60
16-Dec-14	50,142,979	0	0.00	NA	8,849.60
26-Dec-14	50,142,979	0	0.00	NA	8,849.60
29-Dec-14	50,142,979	0	0.00	NA	8,849.60

NOTES:

gpm: gallon per minute

LNAPL: Light Non-Aqueous Phase Liquid

The total flow and total LNAPL recovered includes historical totals from former recovery wells RW-400 through RW-406.

The 26th Street Sewer Area (26th Street North) Total Fluids Recovery System consists of 19 total fluids recovery wells (14 wells onsite along 26th Street and five wells offsite on CSX property) which discharge directly to a benzene NESHA controlled sewer; therefore, the volume of recoverable LNAPL cannot be quantified. None of the CSX wells were active during this reporting period.

The system was operational for the reporting period with the following exceptions: The flow meter assembly was repaired on July 8 (the system was operational prior to this repair - the flow meter was temporarily bypassed). The system was shut down from July 30 to August 1 for semi-annual pump maintenance. On August 7, S-181 was hung up, and three pumps (S-186, S-188, and S-190) were removed for service. S-186 had a worn exhaust valve, and the airline for S-188 was clogged. Both pumps were repaired and reinstalled. The exhaust valve on S-190 was missing; therefore, a new pump was installed. On August 15, the flow meter was inoperable. The flow meter was removed, cleaned, and reinstalled. S-184, S-185, and S-187 were hung up on August 20. On August 28, S-185 and S-188 were hung up. S-185 was hung up again on September 5. The flow meter was inoperable on September 10, and S-183, S-186, and S-192 were hung up. On September 16, S-182, S-185, and S-188 were hung up. On September 24, S-183 and S-185 were hung up, and the system was shut off in order to obtain a flow rate from the Belmont Terminal Loading Rack system; the system was restarted on October 1. The S-185 and S-187 effluent lines were clogged; the lines will be cleared the next time the system is off. On October 3, October 8, and October 17, the flow meter was inoperable. The system was turned off to dry out and repair the flow meter. S-186 and S-188 were hung up on October 8, October 17, and October 22. The system was restarted on October 22; however, the flow meter was bypassed until the assembly could be repaired. On October 27, S-181, S-183, and S-192 were hung up. S-186, S-187, and S-191 were hung up on November 7. On November 11, the ball valves were replaced, and the flow meter was restarted; S-185, S-187, and S-192 were hung up. The flow meter was inoperable on November 18, and S-186 was removed due to a bad air valve assembly. The process sewer was backed up on November 25, therefore, the system was shut off. On December 4, the pumps were removed for system upgrades.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group LLC
Field Monitoring Parameters
AOI 1: 26th Street South Oxygen Injection System
Third and Fourth Quarters 2014

Well ID	Sample Date	Depth to LNAPL	Depth to Water	Apparent LNAPL Thickness	pH	Temperature (°C)	DO (mg/L)	DO (%)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Total Dissolved Solids (g/L)	CO ₂ (ppm) (@10 sec.)
S-50	7/22/2014	---	22.20	---	6.53	18.95	0.91	9.8	-44.9	0.719	NM	NM	NM
S-210	7/22/2014	23.34	23.59	0.25	NM	NM	NM	NM	NM	NM	NM	NM	NM
S-226	7/22/2014	---	21.42	---	6.02	17.35	7.52	78.2	99.2	0.267	NM	NM	NM
S-230	7/22/2014	---	19.77	---	6.52	16.17	1.43	14.5	-4.5	1.137	NM	NM	NM
S-231	7/22/2014	---	19.69	---	6.67	18.13	8.74	92.6	62.1	0.701	NM	NM	NM
S-232	7/22/2014	---	20.55	---	6.50	19.05	1.48	15.9	2.4	1.244	NM	NM	NM

Notes:

All liquid level measurements are in feet.

LNAPL = Light Non-Aqueous Phase Liquid

°C = Degrees celsius

mg/L = Milligrams per liter

mV = Millivolt

mS/cm = Milli-Siemens per centimeter

ppm = Parts per million

--- = LNAPL not present

NM = Field reading not measured and/or corrected groundwater elevation not gauged

Philadelphia Refinery Operations, a Series of Evergreen Resources Group LLC
Dissolved Oxygen Field Data for Shallow and Deep Injection Wells
AOI 1: 26th Street South Oxygen Injection System

Third and Fourth Quarters 2014

DATE	MW-1S-O2	MW-2S-O2	MW-3S-O2	MW-4S-O2	MW-5S-O2	MW-6S-O2	MW-7S-O2	MW-8S-O2	MW-9S-O2	MW-10S-O2	MW-11S-O2	MW-12S-O2	MW-13S-O2	MW-14S-O2	MW-15S-O2	MW-16S-O2	MW-17S-O2	MW-18S-O2	MW-19S-O2	MW-20S-O2	MW-21S-O2	MW-22S-O2	MW-23S-O2	MW-24S-O2	MW-25S-O2	MW-26S-O2	MW-27S-O2
7/22/2014	NM	20.73	NM	25.16	NM	21.22	NM	NM	NM	19.22	NM	4.52	NM	17.83	NM	18.72	NM	19.95	NM	16.99	NM	16.17	NM	6.07	NM	19.24	NM

DATE	MW-1D-O2	MW-2D-O2	MW-3D-O2	MW-4D-O2	MW-5D-O2	MW-6D-O2	MW-7D-O2	MW-8D-O2	MW-9D-O2	MW-10D-O2	MW-11D-O2	MW-12D-O2	MW-13D-O2	MW-14D-O2	MW-15D-O2	MW-16D-O2	MW-17D-O2	MW-18D-O2	MW-19D-O2	MW-20D-O2	MW-21D-O2	MW-22D-O2	MW-23D-O2	MW-24D-O2	MW-25D-O2	MW-26D-O2	MW-27D-O2
7/22/2014	NM	5.19	NM	7.71	NM	2.65	NM	2.41	NM	2.06	NM	2.92	NM	19.20	NM	2.42	NM	2.86	NM	5.42	NM	2.72	NM	18.30	NM	2.44	NM

Notes:
All dissolved oxygen (DO) field data is in milligrams per liter (mg/L).
NM = Field reading not measured.

¹ During O&M visits, DO readings were not taken from all wells due to time constraints (total of 54 injection points); Therefore, half of the readings were taken per visit. Initially they were read in order; however, it was decided to read every other injection point each time.
² A DO reading could not be collected from MW-8S-O2 on July 22, 2014 as the well was either dry or blocked.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group LLC
Oxygen Reduction Potential Field Data for Shallow and Deep Injection Wells
AOI 1: 26th Street South Oxygen Injection System

Third and Fourth Quarters 2014

DATE	MW-1S-O2	MW-2S-O2	MW-3S-O2	MW-4S-O2	MW-5S-O2	MW-6S-O2	MW-7S-O2	MW-8S-O2	MW-9S-O2	MW-10S-O2	MW-11S-O2	MW-12S-O2	MW-13S-O2	MW-14S-O2	MW-15S-O2	MW-16S-O2	MW-17S-O2	MW-18S-O2	MW-19S-O2	MW-20S-O2	MW-21S-O2	MW-22S-O2	MW-23S-O2	MW-24S-O2	MW-25S-O2	MW-26S-O2	MW-27S-O2
7/22/2014	NM	97.1	NM	98.4	NM	110.8	NM	NM	NM	-25.4	NM	59.4	NM	37.0	NM	38.3	NM	6.9	NM	40.1	NM	69.5	NM	56.2	NM	62.7	NM

DATE	MW-1D-O2	MW-2D-O2	MW-3D-O2	MW-4D-O2	MW-5D-O2	MW-6D-O2	MW-7D-O2	MW-8D-O2	MW-9D-O2	MW-10D-O2	MW-11D-O2	MW-12D-O2	MW-13D-O2	MW-14D-O2	MW-15D-O2	MW-16D-O2	MW-17D-O2	MW-18D-O2	MW-19D-O2	MW-20D-O2	MW-21D-O2	MW-22D-O2	MW-23D-O2	MW-24D-O2	MW-25D-O2	MW-26D-O2	MW-27D-O2
7/22/2014	NM	75.3	NM	113.0	NM	-26.7	NM	-23.4	NM	-92.2	NM	24.6	NM	40.8	NM	-23.4	NM	-55.2	NM	50.6	NM	59.9	NM	33.8	NM	65.9	NM

Notes:
All oxygen reduction potential (ORP) field data is in millivolts (mV).
NM = Field reading not measured.

¹ During O&M visits, ORP readings were not taken from all wells due to time constraints (total of 54 injection points); therefore, half of the readings were taken per visit. Initially they were read in order; however, it was decided to read every other injection point each time.

² A ORP reading could not be collected from MW-8S-O2 on July 22, 2014 as the well was either dry or blocked.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
AOI 1: 26th Street & Packer Avenue Sewers Biofilter System
Organic Vapor Concentrations
Third and Fourth Quarters 2014

Date	Biofilter Influent			Biofilter Effluent							
	Packer Ave. (ppm)	26 th Street (ppm)	ST-1 (Combined Influent) (ppm)	Cell-1N	Cell-1S	Cell-2N	Cell-2S	Cell-3N	Cell-3S	Cell-4N	Cell-4S
08-Jul-14	0.0	70.0	36.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
18-Jul-14	0.0	8.0	3.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
23-Jul-14	0.0	21.0	13.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
29-Jul-14	2.0	6.0	4.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
06-Aug-14	3.0	21.0	16.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
15-Aug-14	0.0	14.0	10.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
19-Aug-14	0.0	28.0	12.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
29-Aug-14	0.0	17.0	11.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
05-Sep-14	0.0	11.0	7.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
11-Sep-14	0.0	29.0	12.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
18-Sep-14	4.0	25.0	9.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
25-Sep-14	0.0	23.0	14.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
30-Sep-14	1.0	26.0	17.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
09-Oct-14	0.0	28.0	12.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
17-Oct-14	0.0	16.0	11.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
21-Oct-14	0.0	14.0	8.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
29-Oct-14	0.0	14.0	7.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
07-Nov-14	0.0	9.0	6.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
13-Nov-14	0.0	29.0	18.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
20-Nov-14	0.0	32.0	10.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
26-Nov-14	0.0	10.0	4.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
04-Dec-14	0.0	31.0	19.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
10-Dec-14	0.0	35.0	18.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
16-Dec-14	0.0	89.0	44.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
26-Dec-14	0.0	39.0	21.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA
29-Dec-14	0.0	27.0	16.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA

NOTES:

ppm: parts per million

NA: Not applicable

Readings are collected using a MultiRAE Lite Photoionization Detector (PID).

Cells 3 and 4 were shut off on June 18, 2010 and remained off for the reporting period as they are not currently needed for vapor treatment.

The system was operational for the reporting period with the following exceptions: On July 8, the belts were broken on Blower #2. The belts were replaced, and the blower was restarted. On September 11, the belts were broken on Blower #3. Blower #3 was shut off on September 30 due to excessive vibration from the fan.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
AOI 1: 26th Street & Packer Avenue Sewers Biofilter System
pH Data

Third and Fourth Quarters 2014

Date	Leachate pH	Biofilter Bed - Soil pH			
		Cell 1	Cell 2	Cell 3	Cell 4
23-Jul-14	6.56	---	---	---	--
29-Aug-14	6.77	---	---	---	--
30-Sep-14	6.48	6.37	6.14	6.00	6.13
29-Oct-14	6.82	---	---	---	---
26-Nov-14	6.71	---	---	---	---
26-Dec-14	6.63	6.51	6.27	5.93	6.11

NOTES:

Leachate recordings are collected on a monthly basis.

Media pH recordings are collected on a quarterly basis.

Cells 3 and 4 were shut off on June 18, 2010 and remained offline for this reporting period as they are not currently needed for vapor treatment.

The system was operational for the reporting period with the following exceptions: On July 8, the belts were broken on Blower #2. The belts were replaced, and the blower was restarted. On September 11, the belts were broken on Blower #3. Blower #3 was shut off on September 30 due to excessive vibration from the fan.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
Groundwater and LNAPL Recovery System Operational Data
AOI 2: Pollock Street West End System
Third and Fourth Quarters 2014

Date	Period Total Flow (gallons)	Total Flow (gallons)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
7-Jul-14	284,000	25,398,205	0.0	58,964
15-Jul-14	284,800	25,683,005	0.0	58,964
21-Jul-14	0	25,683,005	0.0	58,964
28-Jul-14	0	25,683,005	0.0	58,964
4-Aug-14	0	25,683,005	0.0	58,964
12-Aug-14	0	25,683,005	0.0	58,964
18-Aug-14	0	25,683,005	0.0	58,964
25-Aug-14	0	25,683,005	0.0	58,964
3-Sep-14	0	25,683,005	0.0	58,964
9-Sep-14	0	25,683,005	0.0	58,964
15-Sep-14	0	25,683,005	0.0	58,964
22-Sep-14	0	25,683,005	0.0	58,964
29-Sep-14	0	25,683,005	0.0	58,964
8-Oct-14	0	25,683,005	0.0	58,964
17-Oct-14	0	25,683,005	0.0	58,964
20-Oct-14	0	25,683,005	0.0	58,964
27-Oct-14	0	25,683,005	0.0	58,964
3-Nov-14	0	25,683,005	0.0	58,964
10-Nov-14	0	25,683,005	0.0	58,964
17-Nov-14	0	25,683,005	0.0	58,964
24-Nov-14	0	25,683,005	0.0	58,964
4-Dec-14	0	25,683,005	0.0	58,964
9-Dec-14	0	25,683,005	0.0	58,964
16-Dec-14	0	25,683,005	0.0	58,964
22-Dec-14	141,700	25,824,705	0.0	58,964
29-Dec-14	149,000	25,973,705	0.0	58,964

NOTES:

LNAPL: Light Non-Aqueous Phase Liquid

The groundwater and LNAPL recovery totals do not include historical totals from the former Pollock Street Vertical system recovery wells. The Pollock Street West End system was started on February 23, 2012.

The system was operational for the reporting period with the following exceptions: On July 9, the system was shut down for semi-annual pump maintenance; the system was restarted on July 11. On July 15, the system was down on high oil/water separator alarm. The system was left off due to low product recovery. RW-117, RW-118, RW-119, RW-124, RW-128, RW-129, S-313, and S-315 were restarted on December 16.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
Total Fluids Recovery System Operational Data
AOI 2: Pollock Street Horizontal Wells

Third and Fourth Quarters 2014

Actual Dates in Period	Reporting Period (Internal)	Days in Period	HW-1 Days of Operation Within Period	HW-1 Water Recovered During Period (gallons)	HW-2 Days of Operation Within Period	HW-2 Water Recovered During Period (gallons)	HW-3 Days of Operation Within Period	HW-3 Water Recovered During Period (gallons)	Total Fluids Extracted During Period (gallons)	Total Fluids Extracted (gallons)	LNAPL Recovered During Period (gallons)
6/21/2014 - 6/30/2014	end 2Q2014	10	Totalizer	0	10	53,712	10	221,472	275,184	52,747,349	NA
6/21/2014 - 7/25/2014	July 2014	35	Totalizer	0	34	182,621	35	775,152	957,773	53,429,938	NA
7/26/2014 - 8/22/2014	Aug. 2014	28	Totalizer	0	28	150,394	28	620,122	770,515	53,517,864	NA
8/23/2014 - 9/19/2014	Sept. 2014	28	Totalizer	42,780	27	145,022	28	620,122	807,924	54,237,862	NA
9/20/2014 - 9/30/2014	end 3Q2014	11	Totalizer	54,480	11	59,083	11	243,619	357,182	54,595,044	NA
9/20/2014 - 10/24/2014	Oct. 2014	35	Totalizer	310,810	34	182,621	35	775,152	1,268,583	54,786,447	NA
10/25/2014 - 11/21/2014	Nov. 2014	28	Totalizer	344,870	28	150,394	28	620,122	1,115,385	55,353,247	NA
11/22/2014 - 12/19/2014	Dec. 2014	28	Totalizer	192,140	28	150,394	28	620,122	962,655	55,557,700	NA
12/20/2014 - 12/31/2014	end 4Q2014	12	Totalizer	139,350	12	64,454	12	265,766	469,571	56,027,270	NA

NOTES:

LNAPL: Light Non-Aqueous Phase Liquid

NA: Not Applicable

Pump tests were performed in March 2011 for the horizontal wells so that recovered volumes could be estimated based on flow rates and system up-time, beginning in the second quarter of 2011. A second pump test was completed following the installation of a new pump at HW-1 on May 13, 2013. The HW-1 flow rate was estimated at 10 gallons per minute (gpm), HW-2 at 3.73 gpm, and HW-3 at 15.38 gpm. Beginning May 25, 2013, HW-1 flow is measured and reported by a totalizer.

HW-1 remained off for the July and August reporting periods. On September 4, the HW-1 discharge line was flushed and a new pump and motor were installed. HW-1 was restarted on September 5. On September 9, the HW-1 flow meter was inoperable due to small stones in the impeller. The stones were removed and the flow meter was restarted. HW-1 was shut off on September 12 to allow the groundwater to recharge to static level. HW-1 was restarted on September 15. On September 22 and September 29 the flow meter was inoperable. A Y-strainer was installed on the influent side of the flow meter on October 3. HW-1 was down on December 4 due to a seized water pump. The pump was replaced on December 9, and the system was restarted.

On July 21, HW-2 was inoperable. The pump was removed, repaired, and reinstalled on July 22. On August 25, the hose from the pump effluent to the main discharge line was replaced. The HW-2 discharge line was flushed on September 5. On October 6, the diaphragm was replaced on HW-2.

HW-3 was operational for the second half of 2014.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
Groundwater and LNAPL Recovery System Operational Data
AOI-4: Penrose Avenue Remediation System
Third and Fourth Quarters 2014

Date	Period Total Flow (gallons)	Total Flow (gallons)	Average Daily Flow (gpd)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
07-Jul-14	129,000	7,196,980	21,500	3.7	239.9
18-Jul-14	200,800	7,397,780	18,255	2.6	242.5
23-Jul-14	82,900	7,480,680	16,580	1.3	243.8
29-Jul-14	118,300	7,598,980	19,717	1.3	245.1
06-Aug-14	136,200	7,735,180	17,025	1.3	246.4
14-Aug-14	131,100	7,866,280	16,388	0	246.4
19-Aug-14	78,400	7,944,680	15,680	0	246.4
26-Aug-14	96,400	8,041,080	13,771	0	246.4
04-Sep-14	4,100	8,045,180	456	0	246.4
10-Sep-14	0	8,045,180	0	0	246.4
19-Sep-14	0	8,045,180	0	0	246.4
23-Sep-14	0	8,045,180	0	0	246.4
02-Oct-14	119,400	8,164,580	13,267	1.3	247.7
09-Oct-14	110,000	8,274,580	15,714	1.4	249.1
17-Oct-14	170,000	8,444,580	21,250	11.1	260.2
21-Oct-14	8,400	8,452,980	2,100	1.4	261.6
28-Oct-14	78,200	8,531,180	11,171	8.8	270.4
04-Nov-14	22,900	8,554,080	3,271	0	270.4
12-Nov-14	101,900	8,655,980	12,738	2.9	273.3
19-Nov-14	85,400	8,741,380	12,200	0	273.3
25-Nov-14	44,000	8,785,380	7,333	0	273.3
04-Dec-14	83,200	8,868,580	9,244	0	273.3
09-Dec-14	41,000	8,909,580	8,200	0	273.3
15-Dec-14	62,600	8,972,180	10,433	0	273.3
23-Dec-14	149,600	9,121,780	18,700	0	273.3
29-Dec-14	109,000	9,230,780	18,167	0	273.3

NOTES:

LNAPL: Light Non-Aqueous Phase Liquid

The Penrose Avenue Remediation System consisting of 18 recover wells (RW-700 through RW-717) was started on March 20, 2013. RW-700 through RW-704 were operational for the reporting period. RW-706 and RW-708 were started on April 18, 2014. RW-712, RW-713, and RW-714 were started on May 19, 2014. RW-705 was started on August 26, 2014. RW-713 was shut off on November 19, 2014, and RW-714 was shut off on November 25, 2014. Groundwater and LNAPL are extracted using pneumatic pumps, and total fluids pass through an oil/water separator (OWS). The groundwater is discharged to the Philadelphia Water Department (PWD) sanitary sewer system along Penrose Avenue, and LNAPL is recovered in a 550-gallon storage tank.

The system was operational for the reporting period with the following exceptions: On September 4, the system was down on high oil/water separator alarm. The system was shut off from September 4 through September 23 in order to upgrade the Warwick controller. On October 9, RW-708 was inoperable; the pump in RW-708 was removed and replaced. On October 21, October 22, and October 24, the system was down on high oil/water separator OWS alarm. On October 28, RW-700, RW-701, RW-702, RW-703, and RW-704 were shut off in order to maximize the operation of the lower recovery wells. RW-713 was hung up on November 4. On November 12, RW-713 and RW-714 were hung up. The system was down on high oil/water separator alarm on November 25.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
Groundwater and LNAPL Recovery System Operational Data
AOI 6: 27 Pump House

Third and Fourth Quarters 2014

Date	Period Total Flow (gallons)	Total Flow (gallons)	Average Flow Rate (gpm)	LNAPL Recovered In Period (gallons)	Total LNAPL Recovered (gallons)
07-Jul-14	0	11,134,675	0.00	0.25	12,926.82
16-Jul-14	0	11,134,675	0.00	0.50	12,927.32
21-Jul-14	0	11,134,675	0.00	0.25	12,927.57
28-Jul-14	0	11,134,675	0.00	0.50	12,928.07
04-Aug-14	0	11,134,675	0.00	0.125	12,928.20
11-Aug-14	0	11,134,675	0.00	0.125	12,928.32
19-Aug-14	0	11,134,675	0.00	0.125	12,928.45
26-Aug-14	0	11,134,675	0.00	0.125	12,928.57
03-Sep-14	0	11,134,675	0.00	0.25	12,928.82
09-Sep-14	0	11,134,675	0.00	0.25	12,929.07
15-Sep-14	0	11,134,675	0.00	0.25	12,929.32
22-Sep-14	0	11,134,675	0.00	0.25	12,929.57
29-Sep-14	0	11,134,675	0.00	0.375	12,929.95
06-Oct-14	0	11,134,675	0.00	0.25	12,930.20
17-Oct-14	0	11,134,675	0.00	0.375	12,930.57
20-Oct-14	0	11,134,675	0.00	0.25	12,930.82
27-Oct-14	0	11,134,675	0.00	0.50	12,931.32
03-Nov-14	0	11,134,675	0.00	0.375	12,931.70
10-Nov-14	0	11,134,675	0.00	0.375	12,932.07
17-Nov-14	0	11,134,675	0.00	0.375	12,932.45
26-Nov-14	0	11,134,675	0.00	0.375	12,932.82
04-Dec-14	0	11,134,675	0.00	NM	12,932.82
09-Dec-14	0	11,134,675	0.00	1.00	12,933.82
15-Dec-14	0	11,134,675	0.00	0.50	12,934.32
23-Dec-14	0	11,134,675	0.00	0.25	12,934.57
29-Dec-14	0	11,134,675	0.00	NM	12,934.57

NOTES:

LNAPL: Light Non-Aqueous Phase Liquid

gpm: gallons per minute

NM: Field reading not collected

The groundwater recovery system was turned off on September 20, 2010 due to the absence of recoverable product. Recovery wells B-124, B-132, B-137, B-139, B-142, B-143, and B-147 contained absorbent socks. On April 10, 2013, the absorbent socks were removed from recovery wells B-132, B-137, B-139, and B-147 due to lack of product. Absorbent socks remain in recovery wells B-124, B-142, and B-143. On February 4, 2014, absorbent socks were placed in B-137 and B-139. On February 19, 2014, the absorbent socks were removed from recovery wells B-137 and B-139. Absorbent socks were placed in B-137, B-139, B-142, and B-143 on June 3, 2014. On June 18, 2014, the absorbent socks were removed from B-137, B-139, and B-143. The absorbent sock in B-142 was removed on July 28, 2014. On December 9, 2014, an absorbent sock was placed in B-137.

During the reporting period, wells were routinely gauged and the socks were replaced when necessary. LNAPL recovery volumes are recorded using a graduated beaker and recovered product is transferred to the system holding tank. Passive remediation will continue until no measurable product is observed or until recoverable thicknesses of LNAPL return to the recovery wells.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
Total Fluids Recovery System Operational Data
AOI 7: 3 Separator System
Third and Fourth Quarters 2014

Date	Total Flow (gallons)	Period Total Flow (gallons)	Calculated System Flow Rate (gpm)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
3-Jul-14	9,261,185	34,500	47.92	145.1	60,598.1
7-Jul-14	9,306,785	45,600	63.33	256.6	60,854.7
16-Jul-14	9,399,185	92,400	128.33	381.0	61,235.7
21-Jul-14	9,456,085	56,900	79.03	220.6	61,456.3
28-Jul-14	9,528,985	72,900	101.25	750.9	62,207.2
4-Aug-14	9,601,685	72,700	100.97	982.2	63,189.3
5-Aug-14	9,611,385	9,700	13.47	169.4	63,358.8
6-Aug-14	9,621,885	10,500	14.58	201.9	63,560.7
7-Aug-14	9,631,185	9,300	12.92	220.1	63,780.8
8-Aug-14	9,641,485	10,300	14.31	269.3	64,050.1
11-Aug-14	9,669,385	27,900	38.75	863.3	64,913.4
15-Aug-14	9,708,185	38,800	53.89	957.8	65,871.2
18-Aug-14	9,730,385	22,200	30.83	756.4	66,627.6
22-Aug-14	9,774,885	44,500	61.81	847.8	67,475.4
25-Aug-14	9,804,685	29,800	41.39	539.3	68,014.7
27-Aug-14	9,824,585	19,900	27.64	261.7	68,276.4
29-Aug-14	9,844,085	19,500	27.08	248.8	68,525.2
3-Sep-14	9,894,385	50,300	69.86	842.6	69,367.8
9-Sep-14	9,953,385	59,000	81.94	1,327.4	70,695.2
12-Sep-14	9,985,285	31,900	44.31	797.9	71,493.1
15-Sep-14	10,014,185	28,900	40.14	464.4	71,957.5
19-Sep-14	10,047,085	32,900	45.69	404.0	72,361.5
22-Sep-14	10,077,585	30,500	42.36	487.4	72,848.9
26-Sep-14	10,113,285	35,700	49.58	486.1	73,334.9
29-Sep-14	10,139,885	26,600	36.94	308.8	73,643.7
3-Oct-14	10,174,085	34,200	47.50	386.0	74,029.7
6-Oct-14	10,200,085	26,000	36.11	204.5	74,234.2
10-Oct-14	10,233,685	33,600	46.67	262.8	74,497.0
17-Oct-14	10,293,685	60,000	83.33	418.8	74,915.8
20-Oct-14	10,319,985	26,300	36.53	192.6	75,108.4
24-Oct-14	10,353,685	33,700	46.81	178.7	75,287.1
27-Oct-14	10,379,285	25,600	35.56	124.7	75,411.8
3-Nov-14	10,437,485	58,200	80.83	271.4	75,683.2
7-Nov-14	10,467,985	30,500	42.36	178.9	75,862.2
10-Nov-14	10,493,885	25,900	35.97	147.1	76,009.3
17-Nov-14	10,551,485	57,600	80.00	254.9	76,264.2
25-Nov-14	10,620,185	68,700	95.42	1,073.9	77,338.1
26-Nov-14	10,620,185	0	0.00	125.8	77,463.9
1-Dec-14	10,673,685	53,500	74.31	506.0	77,969.9
4-Dec-14	10,703,785	30,100	41.81	243.9	78,213.8
8-Dec-14	10,748,085	44,300	61.53	330.2	78,544.0
15-Dec-14	10,835,185	87,100	120.97	915.7	79,459.7
23-Dec-14	10,926,785	91,600	127.22	1,434.7	80,894.4
29-Dec-14	10,989,485	62,700	87.08	1,000.7	81,895.1

NOTES:

gpm: gallons per minute

LNAPL: Light Non-Aqueous Phase Liquid

The 3 Separator System is a hydraulic control system constructed of ten recovery wells (RW-801 through RW-810) which was started on August 23, 2012. Groundwater and LNAPL are extracted using pneumatic submersible pumps, and total fluids pass through an oil/water separator. Water is discharged to an on-site process sewer, and LNAPL is recovered in a tank and recycled by the refinery. Groundwater and LNAPL recovery totals include system startup through the end of this reporting period.

The system was operational for the reporting period with the following exception: The system was shut off from September 16 to September 17 for (static) gauging of the system wells.

Philadelphia Refinery Operations, a Series of Evergreen Resources Group, LLC
AOI 8: Jackson Street Sewer Water Curtain
Third and Fourth Quarters 2014

Date	PID readings (ppm)			Comments
	Blower	Water Curtain	Interceptor Chamber	
08-Jul-14	NA	0.0	0.0	
16-Jul-14	NA	0.0	0.0	
22-Jul-14	NA	0.0	0.0	
29-Jul-14	NA	0.0	0.0	
04-Aug-14	NA	0.0	0.0	
12-Aug-14	NA	0.0	0.0	
19-Aug-14	NA	0.0	0.0	
26-Aug-14	NA	0.0	0.0	
04-Sep-14	NA	0.0	0.0	
10-Sep-14	NA	0.0	0.0	
16-Sep-14	NA	0.0	0.0	
23-Sep-14	NA	0.0	0.0	
01-Oct-14	NA	0.0	0.0	
08-Oct-14	NA	0.0	0.0	
17-Oct-14	NA	0.0	0.0	
20-Oct-14	NA	0.0	0.0	
28-Oct-14	NA	0.0	0.0	
07-Nov-14	NA	0.0	0.0	
11-Nov-14	NA	0.0	0.0	
18-Nov-14	NA	0.0	0.0	
24-Nov-14	NA	0.0	0.0	
04-Dec-14	NA	0.0	0.0	
08-Dec-14	NA	0.0	0.0	
16-Dec-14	NA	0.0	0.0	
23-Dec-14	NA	0.0	0.0	
29-Dec-14	NA	0.0	0.0	

NOTES:

PID: Photoionization detector

ppm: parts per million

NA: Not Available (PID readings are not collected at the blower.)

The totalizer was removed on December 11, 2009.

The system was operational for the second half of 2014.